

Understanding the evaluation of access and participation outreach interventions for under 16 year olds

**Neil Harrison, Katy Vigurs, Julian Crockford, Colin McCaig,
Ruth Squire and Lewis Clark**



The
University
Of
Sheffield.

**Sheffield
Hallam
University**

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Executive summary

1. The project confirmed that nearly all higher education providers (HEPs) were engaging with pre-16 outreach activity across a range of activity types. Proportionately more activity is to be found in pre-1992 HEPs, those with higher average entry tariffs and those with a higher overall spend on access. Almost all HEPs also report engaging in evaluation activity, although the quality and robustness of this varies considerably.
2. HEPs generally identified similar challenges and barriers to effective evaluation as those highlighted by earlier work (Crawford *et al.*, 2017a; Harrison and Waller, 2017) – e.g. resources, data availability, senior buy-in and staff skills. The principal distinction was that outreach with the pre-16 age group was felt to be considerably harder to evaluate than outreach with post-16 groups due to the long time-lag between activities and desired outcomes (i.e. application to higher education (HE)), including the following epistemological issues:
 - Concerns about the validity of self-report data on long-range attitudes to HE, especially when collected within or soon after an activity;
 - Difficulties collecting meaningful data from younger age groups, especially in primary and lower secondary phases;
 - A shortage of robust metrics or approaches to identify modest learning gains (e.g. below a whole GCSE grade) and their attribution to specific activities;
 - Disentangling the unique contribution of outreach in the complex social field inhabited by young people, with multiple influences and school-led activities;
 - Understanding how individual outreach activities combine over time to influence young people and whether their effects are genuinely additive.
3. In addition, the project team identified several potential concerns within the reported evaluation practices, including (a) an over-reliance on descriptive statistics and low use of inferential and/or multivariate analysis (where appropriate), (b) a continuing emphasis on 'aspiration raising' as the guiding purpose of outreach activity despite its questionable role in influencing attainment or HE participation, and (c) a conflation of evaluation, monitoring and tracking data, with an unclear engagement with causality.
4. The scale and strength of evaluation practice within HEPs tended to be positively correlated with the scale of activity. However, the role played by individual staff members in framing, driving and developing evaluation practice was also noted, either in terms of specific skillsets, reflective practice or commitment to evaluation. There was little reported engagement with academic staff or use of independent evaluators.
5. Evaluation practice was overall found to be somewhat stronger within the third sector organisations (TSOs). In part, this was due to the more focused portfolio of activities

provided by these organisations – often a single activity or year group. However, there were also clear elements of good practice that could readily be adopted by HEPs:

- A clear prioritisation of evaluation as an integral element of delivery, with a culture in which evaluation is foregrounded: well-resourced, with expert staffing and a clear role in both evidencing impact (summative) and honing practice (formative);
 - The use of 'theory of change' as a thinking tool to understand and plan how changes in knowledge, attitudes or behaviours might be achieved through specific activities and to challenge underpinning assumptions;
 - A preference for measuring impact through 'intermediate steps' towards HE participation (e.g. increased self-efficacy, confidence or career-planning skills) over a focus on long-range aspirations for HE;
 - A stronger engagement with the research literature, especially in evidencing the value of forms of activity (e.g. mentoring) and the use of validated and cognitively tested inventories to measure psychological or sociological constructs.
6. The project team **recommend** that the Office for Students (OfS) should promote the elements discussed in point 5 above to guide the future development of evaluation practice. The team believes that these dovetail well with previous work on standards of evidence (Crawford *et al.*, 2017b) by providing a framework for evaluation practice to achieve stronger forms of evidence.
 7. To this end, a separate report for HEPs includes (a) a **development tool** to suggest incremental improvements to their current practices, and (b) a brief collection of contextualised **thinking tools** to extend their critical engagement with evidence of impact. An evaluation self-assessment tool has been developed and delivered to the OfS for further development and piloting. These are not intended to form a 'final word' in guidance to HEPs, but rather a resource to help to frame the ongoing discussions that the project team have witnessed within the sector.
 8. Based on the evidence brought together in this report, most HEPs are keen to receive guidance on how to better conceptualise, plan, deliver and evaluate pre-16 outreach activity. There is a strong commitment to working with younger age groups, but less confidence about what forms of practice are most appropriate, leading to extensive experimentation and duplication of effort.
 9. The project team therefore also **encourage** the OfS to continue to support evaluation practice for pre-16 outreach by investing in additional research to determine which 'intermediate steps' have the most utility. There is an existing evidence base (e.g. Cummings *et al.*, 2012; Gorard *et al.*, 2012; Watkins, 2010) on which to draw, but this needs to be contextualised to pre-16 outreach and integrated into a single conceptual model to guide future activity and its evaluation.

10. The project team believes that a clear conceptual model would help HEPs to formulate a more effective portfolio of pre-16 outreach activities and to undertake more successful formative and summative evaluation. The promotion of collaborative working between HEPs (and TSOs) and the sharing of evaluation practices is also **commended**.

Introduction

A. Project rationale

The following extract from the invitation to tender document lays out the Office for Fair Access (OFFA) rationale in commissioning this project:

"Improving robust evaluation of the impact of widening participation activities forms part of OFFA's strategy and evidence-led approach to developing understanding and supporting effective practice across the sector. Key reasons why this is now a particular priority for outreach interventions that target under 16 year olds from disadvantaged backgrounds are:

- There continues to be widespread, increasing and substantial investment into outreach activities. It is critical to widening participation that this investment is used effectively, both within individual institutions and across the sector. Estimated expenditure on access activity reported under 2018-19 access agreements has increased by 15.1 per cent to £196.9 million, up from £171.1 million under 2017-18 access agreements.*
- An established body of evidence suggests that interventions targeting 16-19 year olds is mainly effective in influencing the choice of subject and institution rather than actually widening participation as the effects of disadvantage are already manifest at Level 2 (GCSE).*
- Working with schools to raise attainment for disadvantaged pupils was a requirement in OFFA's guidance for access agreement approval this year for the first time. All institutions have set out plans in 2018-19 access agreements to scale up and re-focus existing work or develop new programmes of work in this area. OFFA will expect institutions to build on this work much more fully in future, including the development of robust approaches to evaluation and outcomes-focused targets.*
- Data reported by institutions to OFFA through our 2015-16 monitoring process and recent research commissioned by OFFA indicates that whilst many institutions have improved their evaluation approaches, there is still much room for development."*

The project was conceptualised as Phase 1 of a two-phase project, with the second phase *"expected to consider and summarise evidence that indicates inter-relationships between different outcomes and produce recommendations for addressing any gaps in evidence that have been identified to inform OFFA activities, policy and guidance."*

B. Project overview

The project was initiated on 2nd November 2017 and concludes with the submission of the publication version of this report on 30th April 2018. It is a result of collaboration between the University of the West of England, the University of Derby, the University of Sheffield and Sheffield Hallam University.

The project team was asked to address the following six research questions and these were used to guide the project:

1. What are the intended outcomes for current outreach interventions directed at under 16 year olds from disadvantaged backgrounds where the long-term aim is to widen access to higher education (HE)?
2. What types of outreach intervention activity or activities are institutions using in relation to intended outcomes?
3. What evaluation tools, methods and metrics are being used to measure the intended outcomes?
4. What are the perceived and actual challenges and barriers for different stakeholders to effective evaluation of long-term outreach?
5. What do different stakeholders consider most effective evaluation practice and why?
6. How valid and suitable are the evaluation tools, methods and metrics (identified through the research) that are commonly used?

The project was constructed around six interlinked work packages:

1. A quantitative analysis of what higher education providers (HEPs) say about their pre-16 outreach activities (and their evaluation) in their 2017-18 access agreements (as the most recent available).
2. An online survey of HEPs to gather information about the pre-16 outreach activities delivered during the 2016-17 academic year and their evaluation, as well as the structure of their evaluation resources and challenges faced.
3. Case studies of four HEPs identified as demonstrating elements of good practice through their access agreements and the online survey, derived from telephone interviews with key staff and documentary analysis.
4. Telephone interviews with 11 third sector organisations (TSOs) to explore their practices and the evaluation of their activities, providing a counterpoint to the data collected from higher education institutions (HEIs).
5. A synthesis of the four preceding work packages to explore elements of good practice, determine a basis for assessing the quality of evaluations and highlight challenges for the sector and OFFA.
6. An invited participatory workshop for evaluators from HEPs and TSOs identified as demonstrating elements of good practice through the online survey and telephone

interviews, to act as a sounding board for the emerging conclusions and recommendations.

This report is broadly structured around these work packages, with sections detailing the findings for the first four, followed by a combined set of conclusions based around the research questions and a set of recommendations for the Office for Students (OfS). The project has also produced a guidance document for HEPs including a self-assessment tool, an improvement tool and a set of thinking tools.

C. Scope and definitions

This project focuses on the HE sector in England. The primary focus of the project concerned outreach activities delivered by English HEPs to young people up to the end of Key Stage 4 (KS4) – i.e. age 16 or under, henceforth referred to as 'pre-16 outreach'. This was restricted to activities delivered under the auspices of the institution's access agreement with OFFA, in that they were targeted at young people with particular forms of disadvantage or from groups who have historically been underrepresented in HE.

The HEPs deemed within the scope of this project were those in the public sector (i.e. excluding the so-called 'alternative providers'), including universities and other HEIs and many further education (FE) colleges. The exact list of HEPs within the analyses varies slightly depending on the prevailing lists made available by OFFA; this varies slightly from year to year.

The project also engaged with organisations providing pre-16 outreach activities outside of HEPs. These are henceforth referred to as TSOs ('third sector organisations') and encompassed a range of social enterprises and charities either working on behalf of HEPs or undertaking their own outreach activity.

The project primarily focused on activity in the 2016-17 academic year. This was a deliberate decision to avoid overlaps and analytical complexity arising from the National Collaborative Outreach Programme (NCOP)¹, which is not funded through access agreements, although this report does make passing reference to the NCOP. This timeframe does include the period in which the National Networks for Collaborative Outreach² were operating.

¹ See www.officeforstudents.org.uk/advice-and-guidance/promoting-equal-opportunities/national-collaborative-outreach-programme-ncop

² See www.hefce.ac.uk/sas/ncco

Similarly, the project did not seek to explore 'whole school' approaches to outreach which are the topic of separate guidance from the OfS³. For example, the project did not engage with activities provided by HEPs that primarily target teachers or other professionals (e.g. with professional development opportunities), nor support for governing bodies or the provision of organisational support. The scope, therefore, comprised direct outreach activities with young people only.

Finally, while this project was commissioned by OFFA, it is reporting to the OfS which came into being in April 2018; the recommendations in Section 6 therefore reflect this change.

D. Acknowledgements

The project team would like to acknowledge the contribution of a large number of people in HEPs and TSOs who have provided information and input ideas into this report through the online survey, telephone interviews or practitioner workshops – their anonymity has been preserved. We would also like to thank the steering group for their time and insights:

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³ See www.offa.org.uk/universities-and-colleges/guidance/topic-briefings/topic-briefing-raising-attainment

Section 1: Analysis of access agreements

Summary

Difficulties with the pre-coding of the access agreements meant that their usefulness in mapping activity levels was limited, although the exercise did demonstrate that **pre-16 outreach activity was very common** and that there appear to be marked differences in activities and evaluation between HEP types. The analysis was also useful in identifying and contextualising the case studies in Section 3.

1.1 Overview

OFFA made available a pre-coded qualitative database of all 2017-18 access agreements in MaxQDA format. This data drew on 199 access agreements and two of the coded themes were isolated for analysis: 004 Activities (15 coded activities and three age categories) and 010 Monitoring and Evaluation (six coded categories).

Unfortunately, the pre-coding proved to be problematic as there was a lack of consistency in the way in which the coding had been operationalised. The codes for different forms of activity or evaluation could not be straightforwardly translated into metrics for activity levels or commitment to evaluation; they simply record mentions of activity in the text, and analysis of textual data in the dataset found that in some cases there was a separate coded entry for each activity, while in other cases paragraphs of text were coded as a single activity; this reflects the 'open text' way in which these Access Agreement sections were written. This means that there is no meaningful correlation between number of mentions and weight of activity or priority afforded to evaluation.

1.2 Pre-16 outreach activities

Nevertheless, it was possible to identify which HEPs mentioned different forms of outreach activity in their access agreements *at least once* as a minimum measure of the proportion of HEPs that were engaged in different activities and forms of evaluation. For the purpose of analysis, HEPs were divided between seven categories⁴ (FE colleges, GuildHE, Million+,

⁴ These were provided by OFFA and reflect the prevailing 'mission groups' in use when the access agreements were agreed, with the Russell Group representing the highest status HEPs, the 1994 representing most other pre-1992 HEIs, the University Alliance and Million+ mainly representing larger post-1992 HEIs and GuildHE mainly representing smaller and specialist post-1992 HEIs. The Non-Aligned group comprise a mixed group of HEIs choosing not to join any of the other groups. NB: the 1994 Group no longer exists.

University Alliance, 1994 Group, Russell Group and Non-Aligned HEPs) enabling analysis between HEP type in relation to both activities and monitoring/evaluation of activities. This analysis is presented in Table 1. As can be seen, there was a general tendency for the 1994 Group HEPs to be most likely to offer a given type of pre-16 outreach activity, with FE colleges least likely to do so. There were exceptions to this pattern, with FE colleges being most likely to be engaged in awareness raising and pre-entry IAG⁵. Conversely, Russell Group HEPs were least likely to mention these activities, as well as pre-entry attainment raising, aspiration raising and non-STEM⁶ subject-specific activities.

Table 1: Percentage of HEPs mentioning pre-16 activity in their 2017-18 access agreement⁷

	FE colleges	Guild HE	Non-aligned	Million+	University Alliance	1994 Group	Russell Group
Activities							
Institutional visits to multi-institution events	56	53	70	68	67	72	68
Subject-specific activities (STEM)	42	65	74	73	70	77	72
General awareness raising	96	84	79	82	79	81	74
Institutional visits to schools	41	67	76	76	74	79	73
Subject-specific activities (non-STEM)	23	89	83	88	81	87	69
Aspiration raising	65	90	82	89	83	86	71
Parental awareness raising	71	65	72	75	76	76	72
School mentors	61	81	80	78	75	84	66
Pre-entry attainment raising	0	87	87	80	77	83	74
School visits to institution	63	69	76	74	70	81	72
Pre-entry IAG (incl. career info)	100	88	83	88	82	88	77
School staff engagement	39	61	72	72	70	78	70
Summer schools	30	81	80	82	74	87	76
Taster sessions	47	63	73	73	72	77	68
Building relationships with schools/colleges	0	100	84	86	63	94	84
Age groups							

⁵ Information, advice and guidance.

⁶ Science, technology, engineering and mathematics.

⁷ Red/italic denotes lowest and green/bold denotes highest HEP type within each category.

Primary (KS1-2)	42	85	78	84	78	87	76
Pre-16 yrs (KS3-4)	71	75	79	80	73	82	72

1.2 Monitoring and evaluation

Table 2 provides a similar analysis for whether or not HEPs mentioned different forms of tracking, monitoring and evaluation – note that these codes are not specifically with respect to pre-16 outreach. In general, members of the Russell Group and 1994 Group were most likely to be engaged in the different types, while FE colleges were least likely.

Table 2: Percentage of HEPs mentioning evaluation in their 2017-18 access agreement⁸

	FE colleges	Guild HE	Non-aligned	Million+	University Alliance	1994 Group	Russell Group
Internal tracking	67	55	58	70	72	54	75
Tracking success of outreach	0	65	29	65	67	85	90
Use of HEAT ⁹	0	50	33	70	44	62	85
Evaluation of access activities	33	95	96	100	94	100	100
Evaluation of student success activities	35	90	21	83	89	100	85
Evidence of impact of activities	8	50	58	48	56	77	85

⁸ Red/italic denotes lowest and green/bold denotes highest HEP type within each category.

⁹ Higher Education Access Tracker: a membership service that provides a managed database for institutions to record their outreach activities and link it to outcome data for young people – see www.heat.ac.uk

Section 2: Online survey of HEPs

Summary

With such diversity of activities and evaluation, it is difficult to provide a unified account of HEPs' practices in pre-16 outreach and evaluation. However, the following elements appeared particularly relevant:

- Most HEPs had a **diverse portfolio of activities**, with 20 per cent reporting activities across all four categories identified and 32 per cent in three of the four – there was a greater level of activity in pre-1992 HEIs, HEPs with higher average entry tariffs and HEPs with a higher spend on access.
- By dint of their small size, **FE colleges form a special subgroup** with very different conceptualisations, practices and concerns to HEIs.
- There were clear examples of stronger and weaker evaluation practice, with a strong correlation between **spending on access and the strength of evaluation practice** – this was not deterministic, also being influenced by organisational factors and the skills and actions of individual staff.
- HEPs highlighted a range of **logistic challenges with evaluation**, including staff resources, available time with young people, co-operation from schools and data protection constraints.
- They also identified **epistemological concerns**, including the validity of self-report data, the lack of metrics for learning gains, the ability to disentangle the impact of individual activities (or actors) and the measurement of the impact of multiple activities over longer time periods.
- While there were diverse aims identified for outreach activities, there was a **strong emphasis on 'aspiration raising'** and little attention given to the psychological or sociological constructs identified as being important within the research literature (e.g. self-efficacy).

2.1 Introduction

A questionnaire was constructed in the Bristol Online Survey system and made live between 18th January and 28th February 2018. Invitation e-mails were sent to 210 HEPs, with two general reminder e-mails, a specific e-mail reminder for FE colleges and telephone reminders for HEIs. A total of 116 responses were received, comprising an overall response rate of 55 per cent. The rate was substantially lower among FE colleges (29 of 86: 34 per

cent) than pre-1992 HEIs (37 of 46: 80 per cent) or post-1992 HEIs (50 of 78: 64 per cent)¹⁰.

Replies tended to come from schools liaison, widening participation or recruitment managers in HEIs or a director/dean of HE in FE colleges. All but one of the respondents reported some pre-16 outreach activity. Cross-referring with the access agreement data (Section 1), it appeared that the respondents were broadly typical of the sector as a whole.

Table 3: Sample overview for HEP survey

	Number	% of sample
<i>HEP type</i>		
- FE colleges	29	25
- Post-1992 HEI	50	43
- Pre-1992 HEI	37	32
<i>Average entry tariff</i>		
- Up to 118 (Quartile 1)	19	16
- 119 to 131 (Q2)	19	17
- 132 to 153 (Q3)	15	13
- 154 and higher (Q4)	17	15
- Not known	46	40
<i>Access spend</i>		
- Up to £204,000 (Q1)	27	23
- £205,000 to £702,000 (Q2)	29	25
- £703,000 to £1,649,000 (Q3)	29	25
- £1,650,000 and higher (Q4)	26	22
- Not known	5	4

Table 3 provides an overview of the sample across three categorisations – by institutional type/history, by average entry tariff (from *The Guardian* HE guide – this was missing for all FE colleges and 17 smaller HEIs) and by overall annual spend¹¹ on the access element of

¹⁰ A simple age-based breakdown of HEIs was used in this analysis to provide more scope for quantitative analysis and comparison than the mission groups used in Section 1.

¹¹ The annual access spend is a function of several factors, *inter alia*, institutional size, the amount of additional tuition fee income (which is correlated with status), the proportion of this income allocated to access agreement activities and the distribution of this expenditure between various headings (which include financial support, student success and student progression alongside access); the spend on access varied between £1,000 and £4,600,000. As such, it combines elements of institutional context (size and status) and managerial decisions (amount and distribution of spend). It

their OFFA-related activity (this was missing for five FE colleges); the latter two were allocated into quartiles for analytical ease. Table 4 cross-tabulates average entry tariff quartiles against access spend quartiles.

Table 4: Number of responding HEPs by average entry tariff and access spend

Average entry tariff	Access spend				
	Unknown	Q1: less than £204k	Q2: £205k to £702k	Q3: £703k to £1.649m	Q4: £1.65m and over
Unknown	5	26	13	2	0
Q1: up to 118	0	1	7	8	3
Q2: 119 to 131	0	0	6	9	4
Q3: 132 to 153	0	0	3	8	4
Q4: over 153	0	0	0	2	15

2.2 Questionnaire design and analysis

A copy of the questionnaire can be found in Appendix 1. It was designed around the principle that the majority of pre-16 outreach activity could fit within four broad categories identified through the analysis of the access agreements (see Section 1): campus visits, mentoring/tutoring programmes, summer schools and academically focused activities. The HEPs were provided with guidance as to what might fit into each category, as well as an opportunity to describe any work that fell outside of these categories¹².

Within each of the four categories, HEPs were asked identical questions, leading with a description of the activities they offered within that category. They were then asked to nominate three main aims from a list of 18 options. Finally, they were asked to outline their evaluation practices, reflect on their effectiveness and describe any challenges faced. The questionnaire then concluded with two general questions about the resourcing and structure of pre-16 outreach evaluation within the institution and about what OFFA could do to assist HEPs.

should be noted that this figure is for *all* access activities and not just pre-16 activities – a disaggregated figure does not currently exist.

¹² There were no significant additions in terms of individual activities, with some institutions explaining variations on the broad categories – e.g. non-residential summer schools – or more general marketing, schools liaison or IAG work. There were some contributions about the interconnectedness of activities into integrated programmes and we will return to this later.

As can be seen in Table 5, there was a clear correlation between the number of categories in which a HEP reported activities and the HEP type, average tariff and access spend, with a greater range of activities in higher-status and higher-spending HEPs.

Table 5: Mean number of activity categories reported, by categories of HEP

Average tariff	Mean	Access spend	Mean	Type	Mean
Unknown	1.91	Unknown	2.00	FE college	1.76
Q1	2.63	Q1	1.67	Post-1992 HEI	2.50
Q2	2.53	Q2	2.17	Pre-1992 HEI	3.14
Q3	3.07	Q3	2.97		
Q4	3.53	Q4	3.38		

Appendix 2 provides an outline of the activities falling within each of the four categories. As can be seen, there was significant diversity, so the following four sections attempt to summarise the activities, their aims and the methods by which they were evaluated.

While some of the data collected was quantitative (e.g. the nomination of the main aims of activities), the vast majority was qualitative in nature, comprising a corpus of text that approached 90,000 words. For the purposes of analysis within the resources available, this was subjected to a process of repeated reading and coding to allow for broad correlations to emerge through content analysis. An informal form of discourse analysis was also used (especially in the 'other observations' subsection) to draw wider patternings within the ways in which respondents talked about pre-16 outreach and evaluation. This was necessarily impressionistic in nature, drawing on our own constructions of the field and respecting that answers to an online survey may not accurately represent practices within HEPs (especially where these are complex or dispersed) or their underpinning missions or values.

This section will now explore each of the four activity types in turn, before moving on to look at evaluation infrastructure, the challenges faced and suggestions for what the OfS could provide to assist HEPs. Appendix 3 contains a table summarising the aims reported for each activity type.

2.3 Campus visits

- **Activities.** Campus visits were a near ubiquitous (96 per cent) element of the portfolio of pre-16 activities, with only five HEPs (three FE colleges and two small HEIs) reporting that they did not provide them. The activities described were generally targeted at KS3 and KS4 pupils, although there were a small number of HEPs

arranging visits for primary children (usually as part of a wider engagement programme). Most were general in nature, but a minority of HEPs had themed visits around subject areas (especially STEM and arts) or career pathways (especially FE colleges). Many of the accounts had some element of marketing the institution, albeit to targeted groups of young people.

- **Aims.** Overwhelmingly, the main aims of campus visits were felt to be to increase young people's knowledge about HE or their aspirations for HE, with 79 per cent and 72 per cent of HEPs citing these respectively. Over a quarter (29 per cent) reported an aim to increase knowledge about careers, with 23 per cent focusing on aspirations for future careers. The focus on careers (knowledge, aspirations and expectations) was particularly marked among FE colleges and less prevalent among pre-1992 HEIs, while the focus on HE was stronger among universities. Pre-1992 HEIs were more likely to see shifting expectations about HE as an important aim of campus visits. Post-1992 HEIs and lower tariff HEPs were more likely to view school engagement and improving KS4 attainment as an aim.
- **Evaluation.** The most common form of evaluation was through post-visit questionnaires completed by the young people, which were used by 57 per cent of HEPs, while 30 per cent used pre-post design questionnaires to attempt to capture changes in knowledge or attitudes (this was much less common among FE colleges) and 26 per cent gathering feedback from teachers (this was somewhat less common among high-access-spend HEPs). A quarter (25 per cent) reported used a tracking approach¹³; this was more common among pre-1992 and higher tariff HEPs. Just 6 per cent reported that they did not evaluate campus visits; these were nearly all FE colleges.

2.4 Mentoring and tutoring

- **Activities.** Nearly half of HEPs (47 per cent) offered some form of mentoring or tutoring programme for young people aged 16 or under. They were markedly more common among pre-1992 HEIs, those with higher average entry tariff and higher-access-spend HEPs. For example, 81 per cent of HEPs in Q4 of access spend provided one or more schemes, compared to just 19 per cent of those in Q1. These schemes were mainly focused on young people in KS3 and KS4 and were a diverse mixture of programmes with different aims¹⁴.

¹³ This included HEAT (see footnote 7), the East Midlands Widening Participation Research and Evaluation Partnership (EMWPREP) and those housed within individual institutions.

¹⁴ A minority of those described had more of the flavour of student volunteering schemes than access activities, in that the focus for impact appeared to be on the mentor/tutor rather than the mentee/tutee – this form of scheme has been delivered by universities for several decades.

- **Aims.** The diversity of the activities described was reflected in the reported aims. Around half (47 per cent) were designed to increase confidence or self-esteem, around a third to increase KS4 attainment (35 per cent), aspirations for HE (33 per cent), subject knowledge (31 per cent), engagement with school (29 per cent) or knowledge about HE (27 per cent). There were no meaningful patterns in the aims by HEP categories, largely because the programmes were already focused on particular types of HEP.
- **Evaluation.** The evaluation of mentoring and tutoring activities was generally the most elaborated within the survey, with the most diversity of approaches and multiple approaches being used to triangulate by both method and perspective. Nearly half (42 per cent) used some form of pre-post (and sometimes mid) design using questionnaires with the mentees/tutees to explore change over time, with 41 per cent gathering narrative end-point feedback from the mentees and nearly one-third collecting data from teachers or from the mentors/tutors (both 31 per cent). Around a quarter (22 per cent) evaluated impact through interrogation of the mentees'/tutees' grades or their performance relative to prior predictions. Only four HEPs (including three FE colleges) reported not evaluating their mentoring/tutoring activities. Higher-tariff HEPs were less likely to use pre-post designs, but more likely to gather feedback from teachers and analyse grades. Higher-access-spend HEPs were more likely to use end-point questionnaires, but also to use multiple approaches.

2.5 Summer schools

- **Activities.** Summer schools were the least common form of outreach reported, with 41 institutions (35 per cent) doing so, including only one FE college. Roughly two-thirds of pre-1992 HEIs, those with a high average tariff and those with a high access spend provided summer schools, which was over double that of post-1992 HEIs, lower-tariff and lower-spending HEIs. There was a mixed approach to summer schools, with no discernible pattern by HEP category. Three basic types were reported in approximately equal numbers: (a) general provision for widely targeted young people, often through partnership schools, (b) subject-specific provision, mainly in STEM, and (c) tightly targeted provision for particularly disadvantaged young people, including those in care and young carers, often in conjunction with a local authority or charity. The size of summer schools provided ranged from groups of less than 10 up to 150, with around 40 to 50 being typical.
- **Aims.** Summer schools were most commonly seen as increasing knowledge about HE (71 per cent), increasing aspirations for HE (63 per cent), increasing confidence and self-esteem (39 per cent) and changing expectations about HE (22 per cent). Those with a subject focus were unsurprisingly aimed to increase subject knowledge: this

was mentioned by 20 per cent of respondents. There was some trend for high-tariff HEPs to have a greater focus on expectations rather than aspirations, but otherwise the aims of the summer schools were relatively uniform. From the qualitative comments, the dominant conceptualisation was that summer schools were an opportunity to expose young people to HE settings, to normalise the HE environment and to undertake motivational activities to establish HE as a desirable future activity.

- **Evaluation.** The evaluation of summer schools was surprisingly underdeveloped in many cases. Most HEPs used end-point questionnaires (61 per cent) and pre-post questionnaires designed to measure changes in knowledge, attitudes or confidence (56 per cent). Overall, 42 per cent integrated summer schools into their tracking data, while 15 per cent sought feedback from teachers and 10 per cent did some form of long-term follow-up with the young people to explore the sustainability of impact. There was some pattern for pre-1992 HEPs to focus on end-point evaluation and long-term tracking, while post-1992 HEPs were more likely to use pre-post designs and to undertake follow-up work to focus on sustained change. HEPs with a larger access spend tended to have more elaborated evaluation, drawing on mixed methods and a wider source of data.

2.6 Academically focused activities

- **Activities.** Nearly three-quarters (74 per cent) of HEPs reported providing academically focused activities. They were more common in higher-tariff, higher-access-spend and older HEIs, but even 55 per cent of FE colleges reported some provision in this area. There was, however, a very marked diversity in what was being reported within the category. At one end of the spectrum were one-off events lasting for one or two hours or out-of-the-box materials for schools to integrate into their curriculum, while at the other end were intensive long-term engagements lasting weeks or months, with 20 hours or more of contact time with the young people. The former tended to engage with very large numbers (often hundreds or even thousands), while the latter were very much smaller and generally involved fewer than 50 young people who had been closely targeted either due to being 'gifted' or because it was felt they were falling behind. Many HEPs had multiple academically focused activities, with a small number having a portfolio of five or more running simultaneously. The size, intensity and scope of academically focused activities tended to increase with access spend, although this was not a strong pattern. Seven HEPs delivered their activities through TSOs including IntoUniversity, the Brilliant Club and the Sutton Trust.

The focus of the activities was similarly diverse, covering KS2, KS3 and KS4, but there was generally a strong connection to a recognised academic discipline (or, in the case

of some FE colleges, a career path). STEM subjects were very strongly represented, especially among HEPs specialising in them, as well as arts, languages and humanities. Several were tightly focused on English or maths for young people approaching GCSEs, with an aim to ensure that they achieved at least a certain threshold grade (usually C, under the previous grading system).

- **Aims.** Unsurprisingly, 64 per cent of HEPs aimed for their activities to increase subject knowledge, with 29 per cent specifically aiming to improve GCSE outcomes. One-third (33 per cent) reported that these activities aimed to increase aspirations for HE, with 29 per cent aiming to increase knowledge about HE and 26 per cent self-confidence or self-esteem. Subject knowledge and GCSE attainment were more likely to be prioritised by older HEPs, those with higher access spend and higher entry tariffs, while other HEPs focused more on knowledge and aspirations for HE and future careers. Activities in these HEPs tended to be shorter, simpler and have a strong crossover with campus visits and open days.
- **Evaluation.** Overall, 44 per cent of HEPs collected end-point feedback from young people and 24 per cent from teachers. One-fifth (20 per cent) used pre-post designs and 15 per cent used tracking software, with 14 per cent (mainly FE colleges) reporting that they did not evaluate this form of activity at all; those using third-party providers relied on them for evaluation. Surprisingly, only 11 per cent of respondents reported looking at changes in grades or improved attainment relative to predictions. One HEP reported undertaking a randomised, controlled trial over a three-year period. Overall, there was a strong connection between the intensity of the activities and the evaluation approaches used, with the short-term engagements tending to be unevaluated or collecting narrative feedback from young people and teachers.

2.7 Evaluation infrastructure

In half of the responding HEPs (50 per cent), evaluations were generally undertaken by outreach practitioners themselves, with no dedicated in-house expertise. This was more common in FE colleges and post-1992 HEIs, those with lower access spending and those with lower average entry tariffs. Conversely, pre-1992 HEIs, those with higher access spending and higher entry tariffs were more likely to have a dedicated evaluator within the outreach team who either undertook all the evaluations (12 per cent) or shared them with practitioners (10 per cent). A further 10 per cent of HEPs used a mixture of in-house evaluations and those provided by TSOs; this included no FE colleges, but a mix of older and newer HEIs. Two HEPs stated that their evaluations were undertaken by schools and two that they only used tracking systems. Finally, 16 respondents – mainly FE colleges – provided no information about how their evaluations were resourced.

There was some evidence to suggest that institutions with in-house evaluators tended to use higher-level techniques (e.g. pre-post designs rather than end-point surveys) and more diversified forms of data (e.g. collecting narrative data from teachers). Obviously, it is impossible to tell whether the presence of the evaluator is the cause or the result of this. There was no evidence that dedicated evaluators are associated with different ways of conceptualising pre-16 outreach, as represented by the aims that were identified in the survey.

Nine HEPs (8 per cent) reported using an established evaluation model, with five using the Kirkpatrick¹⁵ model and four using the NERUPI¹⁶ model; the former has been co-opted from the field of training and focuses on how short-term outcomes become embedded in long-term behavioural change, while the latter has been developed by the University of Bath specifically for HE outreach work. Both focus on evaluating how activities cause specific changes in the participants and are broadly built around a 'theory of change' approach.

Finally, 10 per cent of respondents mentioned that they had collaborated with academic departments to improve their evaluative practices, with a further 7 per cent stating that their involvement in the NCOP was leading to improvements; these elements were unprompted within the questionnaire and so the actual figures may be somewhat higher.

2.8 Evaluation challenges

Respondents were asked separately about the challenges of evaluating each pre-16 outreach activity category. However, it was common for them to either repeat their comments or to refer back to earlier sections of the questionnaire, indicating that many of the challenges were shared across activities. As a result, this element of the data has been combined and analysed as a whole.

The original data comprised free text that was coded into similar recurring themes through a close reading. All but 12 respondents (mainly, but not exclusively, FE colleges) identified at least one challenge and many identified challenges across several different codes. As a result, a total of 282 coded elements of data were identified and recorded. In interpreting the frequencies quoted below, it is important to remember that these challenges were volunteered by HEPs, with each focusing on the issues that came to mind for them. It is likely that others would have agreed with suggestions made by other HEPs if they were given a list from which to choose. As such, the reported frequencies represent a *minimum* figure for proportion of HEPs experiencing these challenges – the actual proportions are likely to be much higher.

¹⁵ See www.kirkpatrickpartners.com/Our-Philosophy/The-Kirkpatrick-Model

¹⁶ See www.nerupi.co.uk

The codes identified naturally bifurcated into two separate macro-challenges for evaluation practice, the first collection being broadly **logistical**:

- **Time available.** The most commonly mentioned challenge (33 per cent) was that of finding time to collect data, especially from young people, in the context of short activities. Some discussed focusing limited time on delivering the activities rather than on asking young people to complete questionnaires, while other reflected that when there were upsets to the schedule, it was data collection that was lost. More broadly, many reflected on the squeezed nature of pre-16 outreach, with schools providing time-limited access to young people. An additional 4 per cent discussed the particular problems with managing data from huge cohorts and the absence of appropriate IT tools.
- **Collaboration with schools.** The involvement of schools and teachers were seen as problematic in several ways. Most common (19 per cent) were issues with accessing data held by schools, particularly with respect to young people's attainment or attendance records. In some instances this was refusal on data protection grounds, but more commonly just a lack of follow-through on agreed processes. A similar proportion (18 per cent) reported that schools were not sufficiently engaged with the outreach activity and subsequently undermined the efforts of HEP staff to evaluate with rigour. Specific instances included not maintaining consistency of young people's involvement over time, not collecting post-event data or targeting participants poorly.
- **Data management and ethics.** There were strong concerns surrounding the use of young people's data, although these were expressed in slightly different ways. For example, 17 per cent found the requirements of tracking systems difficult to meet, either in terms of collecting consents or maintaining contact with young people. A further 10 per cent felt that data protection requirements (especially the incoming General Data Protection Regulation (GDPR)) were unduly onerous or complicated, while 5 per cent had difficulties getting consent paperwork back from parents.
- **Capacity and capability.** Insufficient resources for evaluation were highlighted by 19 per cent of institutions, with a further 4 per cent mentioning a lack of relevant expertise within the outreach team. This was a mixture of those institutions with very small outreach programmes and those that had identified weaknesses in their evaluation efforts and a desire to use more advanced techniques. Finally, 5 per cent of institutions reported difficulties in working with academic departments in the delivery of outreach activities as they were neither consistent in their collection nor provision of evaluation data.

The second macro-challenge was around **epistemology**. These concerns, which are not uncommon within educational research, were slightly less frequently expressed, but tended to be associated with longer and more reflective accounts from HEPs, especially from those with more developed evaluation practices:

- **Use of self-report data.** A quarter (25 per cent) were concerned about the reliability and validity of self-report data from young people. They drew attention to the limited engagement from young people, a tendency to not complete questionnaires fully, to copy from each other, to choose a single option in a bank of Likert scales and other behaviours that cast doubt that the data was an accurate depiction of their experiences, knowledge, opinions and/or attitudes. A further 5 per cent expressed deeper concerns in terms of specific cognitive biases in the data collected, including social desirability bias (what they perceived was the 'right' answer), priming (unduly positive feedback about events that had just occurred) and the Dunning-Kruger effect (inaccurate self-assessment: Kruger and Dunning, 1999). Some (10 per cent) aimed for a time-lag between the end of an activity and data collection, but this was felt to be difficult or impossible.
- **Analysis sensitivity.** Certain types of impact were felt to be particularly difficult to capture. For example, 13 per cent of HEPs had found it very difficult to measure gains in learning or attainment, partly due to difficulties in getting data (see above), but also as the metrics available (e.g. jumps in grades) were insufficiently sensitive to pick up small or moderate effect sizes. A further 6 per cent felt that the impact of individual activities was too small to measure and that it was important, but challenging, to look at additive effects over multiple reinforcing events. Small and niche groups also posed a particular challenge as quantitative techniques could not be used (9 per cent).
- **Complexity and disentanglement.** One-in-seven (15 per cent) HEPs reflected on the difficulty of disentangling the impact of individual activities when the young person was being exposed to multiple interventions, whether led by HEPs, third sector organisations, schools or others. This was exacerbated by difficulties in constructing valid comparator groups (5 per cent) and the targeting of young people who were already very likely to enter HE (3 per cent).
- **Younger and/or vulnerable children.** Finally, 5 per cent reflected on the particular difficulty of collecting meaningful data from primary-age children, especially with respect to changes over time, and 4 per cent expressed ethical concerns around over-researching particularly vulnerable young people or subjecting them to experimental designs.

It is useful to draw on two extended quotes to demonstrate the reflective and critical approach taken by some of the respondents

"Disaggregating the effects of participation in the event from other influences (e.g. differential school practices, home/family contexts etc). Demonstrating impact on some underrepresented groups where the cohorts we serve are very small, for example those from minority ethnic backgrounds. Identifying the extent to which willingness to participate in activities is reflected in change in attitudes. Students from some schools already exhibit aspirations to university and positive dispositions towards education [which] results in limited scope for measuring impact."

"Measuring impact on attainment or educational choices is extremely tricky as our work is one piece of a very large puzzle. Claiming a learner chose STEM subjects at KS4 because of [Activity A], for example, has the obvious weakness that they will have been interested enough in STEM to come ... for six months in the first place. Claiming [Activity B] was the reason a student achieved a good GCSE grade ignores the two years of GCSE teaching provided by the school."

"The schools we work with have rejected the identification of control groups, informing us that if we don't work with those learners they'll get someone else to because they won't deny the opportunity to their Pupil Premium learners (rightly so). Control groups constructed from datasets are of limited efficacy given how much locality can have an impact, right down to the classroom level."

"This is the million dollar question for us – how do we provide robust evidence of causative correlation? I believe this will be the same question right up the chain even to HEAT. How can HEAT demonstrate that the learners tracked are not ones selected by schools/colleges for the activity as most likely to progress to HE out of the target cohort?"

These quotes combine many of the concerns about higher-level epistemological issues that permeate a substantial minority of the accounts. These are both drawn from post-1992 HEIs, one large and one small, demonstrating that these concerns are not confined to higher-tariff or higher-spend HEPs. Indeed, there were no discernible patterns by HEP categories within the challenges that were identified.

2.9 Support from the OfS

The final question that HEPs were asked related to what additional support would be welcomed from OFFA (now the OfS) in order to help them to improve their evaluation practice. Most volunteered at least one suggestion (and some more than one) and these are summarised in Table 6.

These suggestions broadly fell into two groups: (a) those seeking a strong top-down and interventionist approach (setting requirements, providing templates, specifying best practice, regulatory clarity), and (b) those preferring a more supportive and developmental approach (sharing practices, providing training, offering bespoke advice). There was no deterministic pattern as to which of these groups an individual HEP fell into (e.g. by access spend), although those HEPs with stronger existing practices tended to seek the latter forms of support from the OfS.

Table 6: Suggestions made for supportive actions that the OfS could take

	Number
Provide best practice examples	17
Provide standardised questionnaires/templates/toolkit	15
Provide better/clearer guidance on evaluation	13
- like standards of evaluation document (2)	
- like financial support evaluation (1)	
Support sharing of good practice	11
Provide more training on evaluation	9
Set compulsory evaluation framework/standards	8
Develop evidence base for effective pre-16 outreach	7
Provide responsive advice to HEPs	7
- on evaluating new projects (1)	
- on evaluating large projects (1)	
- on evaluating small and one-off projects (1)	
- through visits to HEPs (1)	
Guidance on GDPR (especially with respect to HEAT)	6
Have proportionate expectations of FE colleges and small HEIs	5
Create a unified tracking number/system for young people	5
Specify a 'bare minimum' evaluation expectation	5
Require schools to provide data	5
Recognition of complexity with multiple initiatives/partnerships	4
OFFA already doing well/enough	4
Ensure access to National Pupil Database data	4
Undertake evaluations for HEPs	2
Provide funding for evaluation	2
Be consistent/specific in requirements (ref. monitoring returns)	2
Form comparator groups that institutions can use	2
Recognition of time lags in evaluating long-term activities	2
Not produce vague documents (ref. standards of evaluation)	1
Recognise that qualitative evaluation is valuable	1
Clarity that evaluation challenges should not stop activities	1
Ensure access to UCAS data	1
Pressure schools into allowing FE colleges to do outreach	1
Put more focus on 16-18 outreach, not pre-16 outreach	1
Put more focus on aspirations (and their link with attainment)	1
Put more focus on 'lifecycle' approach	1
Align activities to school careers framework	1
Provide advice on the amount of school data needed	1
Visit HEPs to understand what is happening	1
Provide funding to join HEAT	1
Provide guidance on how to use HEAT data	1
Make it compulsory for institutions to have evaluation staff	1
Help HEPs to demonstrate business need for pre-16 outreach	1
Provide statistical analysis training	1

2.10 Other observations

This final subsection provides some reflections on the macro-discourses within the data. As discussed earlier, these are necessarily somewhat impressionistic, but they may provide the starting point for more structured investigation in the future:

- **FE colleges:** These formed an outlying subgroup within the data. Small numbers of HE students generally meant that they had a very low access-spend and so their pre-16 activities were limited in both scope and scale. The underpinning aims of these activities were less explicitly HE-based than for the other HEPs, with more focus on career-planning. In particular, many of the activities described were focused on recruiting young people in KS4 into the college at 16 for Level 3 courses that would lead into HE (sometimes called 'inreach') – consequently, many felt that admission figures were the key evaluative indicator for their activities. This observation is not intended to be read as critical of FE colleges. Indeed, the close focus on careers was a potentially positive feature generally absent from other HEP accounts.
- **Ubiquity of aspirations:** The most common conceptualisation for the aim of pre-16 outreach was to increase aspirations for HE; this was frequently foregrounded across all four categories and all HEP categories. Given the increasing body of research suggesting that aspirations are neither a good measure of likelihood to progress to HE nor a means to raise attainment (e.g. Baker *et al.*, 2014; Cummings *et al.*, 2012; Gorard *et al.*, 2012; Khattab, 2015), this is potentially concerning. Conversely, constructs that do attract support in the literature were less commonly mentioned; for example, self-efficacy was only referenced by 22 per cent of HEPs offering mentoring/tutoring and 17 per cent of those offering summer schools, but barely at all for the other two categories. One issue is that the concept of 'aspirations' tended to be used quite loosely and may cover a variety of conceptualisations, including dispelling misunderstandings, enhancing life-planning and fostering agency. A stronger and more specific conceptualisation could be a useful basis for evaluation.
- **Overlapping purposes:** It is important to recognise that pre-16 outreach activities do not exist in a policy or practice vacuum for HEPs. One manifestation of this was that some of the reported activities had a strong flavour of having multiple (and potentially conflicting) justifications. This included those aimed at marketing the HEP, those seeking to build partnerships with schools, those discharging the institution's corporate social responsibility and those intended to provide students or staff with volunteering opportunities. This is not to say that such activities lacked an access 'angle' nor that they were being incorrectly counted against access agreements, but that a tangible access impact might only be one element of an institution's decision to offer them.

- **Role of individuals:** While access spend had an important role in determining both the extent of pre-16 outreach activities and how they were evaluated, there was also a strong role for individual managers/practitioners/evaluators in the ways in which it was conceptualised or prioritised. Accounts were more or less convincing, for example, through the accurate use of key terminology or description of methods. This individualised element may be insufficiently emphasised in considering how policy is enacted.
- **Tracking data:** Around a third of HEPs mentioned their use of tracking software (HEAT, EMWPREP or their own) to log students' involvement in activities and other data. However, many HEPs reported being unsure how draw evaluative conclusions from this data; a small number were explicit about this, but it was implicit in other accounts and none specified any form of appropriate quasi-experimental study to enable causal claims to be developed¹⁷. A small number implied that they felt that having a tracking system was alone sufficient to evidence evaluation as it was able to generate descriptive statistics about what happened to individual young people.
- **Linked programmes:** Some HEPs were uncomfortable with the conceptualisation of outreach as comprising distinct activities. These institutions used one or other of the spaces provided to assert their preferred conceptualisation of pre-16 outreach as an integrated, multi-year programme for a tightly targeted group of young people in a small number of schools. From our perspective, the individual elements of these programmes appeared to map readily onto the four activity categories, but the institutions tended to see them within a delivery framework with macro-level aims; these often reached beyond the age of 16 and directly to HE.

¹⁷ HEAT are currently working on developing quasi-experimental methodologies with the data provided by their member HEPs.

Section 3: HEP case studies

Summary

The four case studies were selected to provide a range of examples from HEPs with significant activity and elements of good practice. There were several points of agreement within the case studies:

- There was a commitment in most of the case studies to using a **common core of questions** between different activities to provide comparability.
- There was widespread reflection on the **challenges of using self-report data** from young people, with evidence of priming or placebo effects in the reports provided.
- None of the case studies used comparison groups or other means of **exploring the counterfactual** if the activity had not occurred.
- Campus visits were not generally felt to be very impactful, but they were valued as an introductory step and for the valuable task of **building relationships with schools**.
- All four case study HEPs were members of HEAT and were hopeful that this would help them to **answer questions about long-term impact**.

Conversely, there were marked areas of difference:

- Two case studies focused on pre-post designs to explore **changes over time** – the others relied mainly on retrospective assessments of change.
- Only one demonstrably used **statistical testing to quantify effect sizes** (another alluded to it), rather than simple descriptive statistics.
- One case study used the Kirkpatrick model and this provided a form of theory of change with **intermediate steps to behaviour change** defined – the other case studies did not have a clear theory of change embedded in their evaluations.
- While all were careful to monitor the targeting of their activities, only one explicitly reflected on the risk of drawing incorrect conclusions when working with **young people already on the pathway to HE**.

3.1 Introduction

The analysis of access agreements (Section 1) and the HEP survey (Section 2) were used to select four HEPs for more detailed exploration. These descriptive case studies were purposively sampled from HEPs with a significant amount of pre-16 outreach activity and reportedly stronger evaluation practices, as well as a mix of institutional types and regions. Several HEPs failed to respond or declined to be case studies, citing time pressures or difficulties due to the strike action that was then ongoing. The fieldwork was undertaken in March 2018.

The four case studies were compiled using the following data sources: telephone interviews with key staff, survey responses, historical contextual data from access agreements, evaluation reports and/or example evaluation tools. These data sources allowed the research team to explore issues of rationale, outcomes and evaluation in depth, as well as any shifting emphases in activities, target groups or underpinning discourses. Table 9 below summarises the institutions and the pre-16 outreach activities they currently offer. Full details of each case study can be found in Appendix 4.

Table 7: Case study characteristics

	HEP type	Types of pre-16 outreach activity
Case Study 1	Pre-1992 Higher tariff (Q3) Lower access spend (Q2)	Year 5 Computer Coding Club Year 5 and 6 Reading Club (one school) Year 6 Experience Week (Languages) School-based sustained IAG programme with one partner school. Annual, whole-class workshops with Years 7-11. Medicine and Dentistry Outreach Programme (Years 8 to 13). Year 8 Experience Week (Humanities) Year 8 campus visits (aimed at middle set students) Year 10 reading programme (boys only) Year 11 one-week residential summer school (34 students)
Case Study 2	Post-1992 Low tariff (Q1) Higher access spend (Q3)	Primary campus visits Secondary campus visits Science and Technology Club (extra-curricular for Years 7-11 over 12 months) Year 9 mentoring programme Year 11 mentoring programme One-off science events sponsored by external organisations Bespoke academic/subject workshop (requested by individual schools)
Case Study 3	Post-1992 Higher tariff (Q3) Higher access spend (Q3)	Primary school campus visits Secondary school campus visits Year 10 group mentoring programme (7 local schools) Year 10 residential summer school (aimed primarily at those on the above mentoring scheme) Humanities Homework Club (community-based) Subject taster days (Years 8-11)
Case Study 4	Pre-1992 High tariff (Q4) High access spend (Q4)	Flagship programme – a targeted, cumulative, sustained programme of WP activities from Years 7-11 Primary campus visits (targeted) Secondary KS4 campus visits (not targeted) Secondary KS4 'Access to Professions' day events (targeted) Secondary KS4 academic enrichment short events Mentoring programme for KS4 care experienced learners Year 10 residential summer school Brilliant Club scholars' programme

3.2 Case study 1

This HEP is a relatively small pre-1992 university with a higher average entry tariff, although not as high as Case Study 4. Despite the lowest access-spend of the four case studies, it still offered a broad range of activities, spanning both primary and lower secondary phases, but

no mentoring or tutoring programme. Primary data was collected from the widening participation manager, widening participation officer and evaluation officer.

Evaluation work is focused on by the full-time evaluator based within the widening participation team. This post has existed for three years. They have some background in evaluation and social statistics. There is currently no input into evaluation from academic departments, although they are able to draw on quantitative expertise from a colleague in a different team. Evaluation is structured around individual activities and sits alongside demographic monitoring (to ensure accuracy of targeting) and long-term tracking through HEAT.

- The evaluation of **campus visits** has recently been refocused around the use of the 'Turning Point' tool, whereby young people use a keypad to respond to real-time questions; this is felt to be an efficient and engaging way to test knowledge and attitudes, including through questions that are asked at the beginning and end of the event. The HEP does not believe that these events have a large individual effect on young people, especially in relation to other influences, but they are confident that they act as an important introduction to HE and a springboard for later work. Qualitative feedback is also gathered from teachers after the events.
- Three years ago the HEP's collaborative Year 11 **summer school** was being monitored, but not evaluated. That changed with the instigation of the new 'evaluation officer' post, with the development of clear aims and objectives and an evaluation plan built around an online questionnaire that is administered before and after the residential week. This asks young people to answer attitudinal questions using an on-screen slider to indicate their agreement with statements about HE – e.g. whether they know what to expect. However, the HEP feels uncertain about the effectiveness of this approach:

"It feels quite hard to measure attitudinal shifts. It doesn't feel like there are many existing scales that have been validated and are being used by the sector and that we could then use in this context. So, there are more generic self-efficacy scales, but if you're looking at more HE-specific stuff, it's a bit tricky. So, we came up with statements from scratch [as] I think a lot of people are doing. We wrote the statements to reflect the aims and objectives of the project. And we looked at other national surveys and included some similar questions like one on aspiration and another on expectation. This is important because we find that our Year 11 participants usually rate 100% for their aspiration to go to HE, but the expectation to go to HE usually gets a different response."

They are also appropriately thoughtful about the quantitative analysis used:

"...although this is with a massive caveat as in none of our activities do we work with massive numbers. Most of our activities are for about 30 students. So I'm always really cautious with our statistical tests."

Young people are also involved in a focus group on the final day of the summer school to explore what they have learned and there is also a structured debrief with HEP staff involved in its delivery. While the institution is confident that the summer school has strong impact, they feel that the small annual numbers make this difficult to demonstrate through statistical analysis.

- The institution offered up a new reading club for Year 5 and 6 pupils with student ambassadors as an example of an **academically focused activity**. This is evaluated through an age-appropriate pre-post questionnaire using a pictorial scale, as well as through a focus group with the young people. The young people are targeted on the basis of regular school reading tests and the institution feels that there might be the opportunity for an experimental design evaluation once the programme has grown.

The HEP feels that pre-16 outreach has particular challenges that are distinct from other forms of outreach work. For example, it is difficult to ensure that schools target the 'right' young people and provide the data that is required for evaluation:

"A targeting challenge is that anywhere where it is the school who selects which individuals to participate in pre-16 activities, we find it a lot trickier to control the effectiveness of the targeting [...] For example, with campus visits, as much as we advise schools about who we're trying to reach, ultimately there can be a disconnect between a school's priorities and a university's priorities. And sometimes teachers don't seem to have the knowledge of learners' backgrounds that we expect them to [...] If a school then brings a low proportion of students from targeted backgrounds to the events, we will point out to them that if this doesn't change next time that we won't be able to offer them these activities in the future... we explain that our funding requires us to target students from particular backgrounds."

"From an evaluation side, sometimes getting data from younger students can be trickier. For us there's maybe a perception of data protection issues [...] We have to send forms home to parents and then we wait to see if we'll get data back. The schools and the teachers are gatekeepers, which is less of an issue with post-16 outreach."

In particular, schools working with pre-16 young people often do not see HE decision making as a key priority: *"It's not as much on teachers' radars as it is in Sixth Forms"*.

The HEP is an enthusiastic member of HEAT and sees this as offering the opportunity to do some more rigorous forms of analysis, collecting more than the minimum amounts of data:

"So, we put a lot of data into HEAT for the long-term tracking and of course it's very long term when working with younger pre-16s [...] One of the things that is really tricky is that for any of this sort of activity, we don't have a control group. I think once I have that data I'll be looking to see if I can do any quasi-experimental stuff with NPD data potentially, by creating artificial matched groups [...] The kind of thing that we can do at the moment is not as robust as I would like, so like comparing the progression rates of different levels of intensity activities, comparing progression rates with averages for the schools that the students go to. One of the things I want to do is look at the survey responses that people give and compare them with their behavioural outcomes, and seeing how good an indication those things are."

The HEP does not currently use a 'theory of change' approach to planning and evaluating their activities, but they are considering working this into their operation in the future, especially with respect to their summer school.

The HEP provided example copies of evaluation tools and two reports about their summer schools and a follow-up event held six months later. These reports employed a mixed-methods approach, blending inferential statistical analysis with qualitative comments, as well as fulfilling both a summative and formative function.

3.3 Case Study 2

This HEP is a medium-sized post-1992 university with a low average entry tariff, but a relatively high access spend. It offered activities across three of the four categories, but no residential summer school. Primary data was collected from the widening participation manager. The HEP is based within an area of deprivation, so they are highly reliant on schools to help to target activities appropriately:

"All of our pre-16 outreach is regional. When it comes to targeting the pupils in the schools, because we don't know the pupils or the WP characteristics that might apply to them, we really depend on working with teachers and staff within the schools to try to identify those pupils. We let the teachers know who we need to target and tell them the characteristics, such as low household income [...] We then check the effectiveness of the targeting, although only if it's an intensive outreach intervention, less so if it's more light touch."

Evaluation is organised through the team of practitioners, with no dedicated evaluation staff, but they do get additional support from the marketing department and are networked with colleagues in other HEPs for the sharing of good practice; there is no collaboration with academic departments on evaluation. Evaluations are structured around the Kirkpatrick model as a framework for understanding behavioural change and measuring effectiveness, with a common set of five questions around intent, attitudes, motivation for school and the link between education and careers:

"The Kirkpatrick model is looking at reactions, learning, transfer and then results. And then for us it's trying to demonstrate that there is progression within the evaluation, so for example, looking at the bottom layer of reactions it'd be to what degree do participants act favourably to the learning event, so, whether they enjoyed it and whether it met their expectations, but that's really soft-touch or low level [...] When we look at the next layer, 'learning', it's to what degree participants take on the intended knowledge we're giving them, so: have they acquired any new knowledge, have they learned things about university, can they acknowledge that they've learned new things that might be useful to apply to their own chosen career path? In terms of 'behaviour' it's whether they can apply this. For example, 'I know that I want to be a pharmacist so I'm now going to work harder at science and maths at school because I know how useful that's going to be', so behaviour change is a part of this. Finally, it's to what extent do they get targeted outcomes, so, do they attain higher results in their maths and science GCSEs, are they going on to choose A-levels in those areas, and ultimately are they coming to ourselves or another university to study that subject? Are they then completing that degree and getting good results at the end of it?"

The Kirkpatrick model was chosen as a result of it being promoted in the access agreement guide:

"We find it one of the simplest to illustrate compared to other models that we've seen. It's easy to explain it to a primary school teacher and to show how it relates to their pupils. It's easy to see the tangible outcomes from it and whether they've been met. For me it's fit for purpose at the moment and we wouldn't be looking to change that in the future."

The HEP has recently joined HEAT, but does not expect to get data for several years, conceptualising this tracking activity as an addition to their current evaluation efforts, rather than as a replacement for them:

"We've just started to input data into the HEAT tracker, so we try to update the pupil data in that [...] that will tell us the cohort that we're working with and then we can track them through university and beyond [...] Now that we are signed up to HEAT we're looking forward to seeing what it will add in terms of what we've got going currently."

- The HEP has a programme of **campus visits** that are schools-led:

"Quite often we can have generic primary outreach events. So the objective of the session will be about raising aspirations, raising awareness towards HE, towards the choices that are available to pupils post-16 and towards what their local university will offer. So quite often schools will say to us they want something that is an overview of all things HE."

Evaluation is mainly based around end-of-event questionnaires. These are adapted to be age-appropriate depending on whether the event is targeted at primary or secondary phases, and combine Likert scales and opportunities to provide qualitative feedback. They are concerned about non-completion, especially among older participants, evaluation fatigue and misunderstanding of the scales used. Teachers are also invited to give feedback about both the logistics and effectiveness of the event, but the HEP feels that they do not always understand the importance:

"We did a mindfulness session with Year 6 in a school and it was basically a group that was quite anxious about its upcoming SATs and the teacher has contacted us and asked if there was anything we could offer about revision techniques. So we went out and did a growth mindset and a mindfulness session and when we came to evaluate the session at the end, which usually takes no longer than five minutes, the teacher said to the pupils 'come on – just put anything down because we need to get ready for home time', so was just very blasé about it. It was disappointing that she didn't positively encourage the pupils to think carefully about the comments they were writing down. But this experience got us thinking that we hadn't responded well enough to the school's needs, and we realised that our requirements and theirs are quite different."

As a result, the HEP is also experimenting with more interactive ways of collecting qualitative comments within the events:

"I contacted the school to ask what would work better. So when we went back the next week. We went in with a whiteboard and wrote four numbers on it, 1 being Poor and 4 being Excellent, and at the end of the

session the pupils were asked to write a number on one side and any other comments on the rear of it to communicate how they felt about the session and then put the paper in a jar. Now the data maybe wasn't as rich in terms of the number, but what they wrote on the back of the paper was really helpful [...] the data was different, but just as rich and meaningful as previous evaluation forms."

- The HEP operates two slightly different **mentoring programmes** – one in multiple schools at Year 9 and one in a single school at Year 11. The former is evaluated through a pre-post design by asking the participants to audit their own skills before and after the programme, as well as a final questionnaire for young people and their teachers. The latter was a bespoke programme and so asked the participants to complete a questionnaire after each of the six sessions, alongside informal feedback gathering from teachers.
- The HEP provides a wide portfolio of **academically focused activities**, especially around STEM subjects, with a mix of general and bespoke provision for individual schools.

"We try to have a combination of things that will raise aspirations towards HE, but also by raising attainment by linking with the national curriculum and also looking at things such as study skills and revision skills or even mindfulness – things that teachers are saying to us will improve attainment across the board, rather than it just being aspiration-led. We offer a pick-and-mix approach so that schools can say what would benefit their pupils most. We're very aware that we might not be the only HE provider they're working with. The schools need to take a holistic overview of everything that's going to work for the pupils."

These share some elements with campus visits, insofar as they are one-off events on campus, but have a stronger focus on enriching a particular subject area. They span both primary and secondary phases. Evaluation is through paper questionnaires for both participants and teachers, collecting both summative data through Likert scales and qualitative feedback for formative purposes:

"The main thing we do in terms of evaluation is evaluate the young people and what their experiences are of the sessions they attend. But at the start and end of each year we also ask them things on a four point scale like 'how likely is it that you will go to university' [and] how much do they see a connection between what they're studying at school and future choices,

and then we'll look at their answers at the end of the year and look for a marked improvement to show that it's having an impact."

The HEP provided copies of two evaluation questionnaires (one primary and one secondary) and a short evaluation report that mainly covered descriptive end-point statistics for the cohort of participants, but also mentioned some analysis of changes over time.

3.4 Case Study 3

This HEP is a large post-1992 university with a higher entry tariff that is only slightly lower than that for Case Study 1. It has a relatively high access-spend, although lower than Case Study 4. Primary data was collected from the head of widening participation and a widening participation manager. As with Case Study 2, this HEP serves a regional market with a high level of deprivation:

"In terms of the targeting of pre-16 learners, we're quite fortunate in some ways in this area in that there are lots of schools that have a high proportion of Free School Meals pupils, so it's quite easy to target schools on that basis. The challenge comes when we want learner-level targeting. We might say that a particular activity is to be aimed at their WP cohorts, which could be based on Free School Meals, might be 'looked after', might be young carers, but we have little control as to whether they target these learners... In an ideal world we'd have a small number of schools that we work with intensively, but the region doesn't lend itself to this model as we could legitimately be working 80 schools on a list. We'd probably rather that we could identify 10 as our core schools."

They see their portfolio of pre-16 outreach activities in continuity with what was developed over time during the Aimhigher era¹⁸, albeit that they are keen for this to evolve through feedback and good practice sharing:

"One of the challenges is to ensure that activity content is continually evolving and that it's informed by feedback from teachers and learners. It's important that we check that the activities are still relevant and are based on the needs of the school. It can be a challenge to involve schools in the design of the activities from the start."

"I wouldn't say our pre-16 activities are research-informed, but they're certainly informed by best practice, so we do take account of reports that are done by others about what works in this field [...] the research side is an area that

¹⁸ Aimhigher was the national flagship widening participation initiative from 2004 to 2011.

traditionally we've not been very strong on, so we tend to rely on what others tell us or the direct feedback we get."

Another legacy of Aimhigher is a commitment to a holistic conceptualisation of outreach:

"We saw the benefit of having a coherent programme, particularly around Year 10 where we have the same learners taking part in two or three interventions."

Evaluation is shared between an evaluation co-ordinator and practitioners, with the former providing advice and undertaking some of the larger evaluations. Academic departments are not involved in evaluation design – this has been explored, but the need to gain ethical approval can be a barrier – but they do undertake the evaluation of their own pre-16 outreach events. Like Case Study 2, the team has developed a set of core questions that are used in all evaluations, but they see their evaluation practices as being in flux:

"Designing and running evaluation activities has very much been a learning curve for us. We've picked up how evaluation is done elsewhere. We've done our best to replicate. We've been on some courses, but really we take a very practitioner approach which is to work out what we can reasonably do. A lot of it is driven by feedback from the sector, certainly that's why we started to introduce focus groups when we heard that questionnaires aren't going to give you the level of feedback that you need. Similarly, people were starting to talk about longitudinal data and that's when we started to go back to people to find out about impact later down the line."

They have recently shifted to a general approach based on a pre-post design at the cohort level:

"We do pre- and post-surveys for all our activities now, even if it's just a short activity. The sorts of questions we ask are 'Do they intend to go to university after they leave school?' Then we ask them whether they agree or disagree with a series of statements including 'I know the benefits of going to university. I understand university is different from school. I know what I would need to do if I wanted to go to university.' So, they're the core questions on the pre- and the post-surveys. Then on just the post-survey we ask them whether the activity has made them more likely to consider going to university, as well as some questions about how they enjoyed the event. We can then add extra questions on to suit the activity being run, but those core questions shouldn't change."

"At the moment we can't link an individual's pre- and post-survey responses, so we currently can't see how an individual's changed. So, we can only look at it at the cohort level."

"A barrier for us in terms of designing the evaluations is are we asking the right questions. Very often it's informed by what other people are doing or what we think is right. Within the university we don't have a direct link with researchers per se. Like in most universities, research sits on one side and WP sits on the other. It's something we'd like to move towards more."

However, they still find that undertaking evaluations is challenging due to the different priorities of the individuals involved and uncertainty about what should best be done with the data collected:

"Sometimes people don't understand why there needs to be an evaluation. That could be learners, schools, other parts of the university. And you really need their buy-in to be able to capture meaningful data. So, at the moment staff are helping learners to fill out very complicated forms to gain consent to track their data over time, but the learners don't always see why they should be doing this. They see it as an extra task that's not necessarily connected to their involvement in outreach events."

"It's important to recognise that most of the people who are running outreach events have limited evaluation knowledge and skills, so it's very difficult to ask them to do something that is really quite complicated. Sometimes we've used flipcharts and post-it notes to run more interactive evaluative sessions, which work better for the learners, but they're much more difficult to interpret and very often we do that and then they just sit on the side. If they've not been analysed then there's very little point in doing it."

"In an ideal world we'd have someone telling all universities, 'This is how you should evaluate a one-day campus visit. This is what we regard as best practice and here are the tools you need to do it.' Rather than every HEP doing something slightly different – I sometimes think we collect data just for the sake of it, but do we use it to tell us anything?"

Again, similarly to Case Study 2, the HEP has recently joined HEAT, but does not expect to get any data for several years. However, they are somewhat more cautious about what HEAT might be able to offer them due to the logistical challenges and long time-lags involved:

"One of the challenges in this area is that 70 to 80 per cent of learners change institution at 16, so it's not possible to track learners through an institution [...] so we do need a mechanism to find out what happens to learners who have participated in a number of outreach activities over time. So that's what we hope to get out of HEAT, though it'll be a long time before we get this information."

"We're expecting the biggest difficulty with HEAT is going to be GDPR and getting the specific consent needed to be able to track someone. It doesn't work for younger age groups because you need parental consent so that just wouldn't work. And we've had some schools that have said unless it goes to parents, we're not going to allow you to track them, which is a frustration but schools have their own rules so we have to play by them."

The HEP offers pre-16 outreach activities across all four of the categories used in this report.

- **Campus visits** are provided for young people from Year 5 to Year 10, with multiple runs of the same event through the year and large aggregate numbers involved. End-of-event paper questionnaires have historically been used to gauge increased knowledge about HE and likelihood of applying:

"We keep the evaluation forms short and sweet so we generally get them filled in correctly and get them back, but there's not much opportunity for them to add more detail or suggestions for improvements. We tend to rely on anecdotal comments throughout the day or teacher feedback to capture this sort of evaluative feedback".

Data is also collected from teachers. As with Case Study 1, the institution views these events as a springboard for future engagement and does not expect them to show high effect sizes; they have previously experimented with pre-post designs, but feel that their current approach is proportionate. However, they also recognise issues with self-report data from young people (along the same lines as discussed in Case Study 2) and the particular challenge with collecting this sort of data from primary-aged children.

- Their **mentoring programme** is relatively large (seven schools and 150 young people in Year 10). It is evaluated through a pre-post questionnaire design with the young people, with the addition of focus groups several months after the end of the programme and feedback from teachers. The programme constitutes a significant part of their pre-16 access-spend and so is subjected to greater evaluation; the HEP would like to extend this with more data collection after the focus groups. A key challenge for summative evaluation is ensuring that schools allow the same young people to

participate throughout the programme, but the HEP has also been working to adapt the evaluation around the learner group:

"When evaluating the mentoring scheme we realised that some of our assumptions were wrong, so the things learners remembered were not what we expected and they had forgotten things, like who their mentor was, which we had assumed would be important for them. So, they were able to talk about some of the activities and how they'd applied the learning. It was very useful to get this qualitative data and to find out what impact the activities had had on them. And it helped us reframe that project moving forwards."

- Those young people who access the mentoring programme are invited to the HEP's residential **summer school** in Year 10 and Year 11, along with additional participants from other schools. Evaluation uses a pre-post questionnaire design, which is supplemented by informal feedback from teachers once the young people have returned to school and learner focus group feedback from a reunion held a year later: *"By having several linked interventions it gives us the opportunity to ask the same young people about the impacts over time. It's the only opportunity we really have to work at the learner level pre-16 in a longitudinal way."*
- **Academically focused activities** are varied and include a homework club run by an academic department and a portfolio of taster and enhancement sessions. Aside from the primary purposes, these are seen as important for building relationships with schools. However, as they are run by academic departments, consistency in evaluation can be problematic. The intent, however, is to use end-of-event questionnaires with participants and informal teacher feedback about improvements once back in the classroom.

The HEP provided copies of the questionnaires that they use with young people across the four categories of activities. They also provided a copy of the evaluation report on the summer schools. This comprised a mixture of process and formative content, combined with summative analysis from the questionnaires; the report mentioned the results of inferential statistical testing, but no details were provided.

3.5 Case Study 4

This HEP is a large pre-1992 university with entry tariffs and access-spend in the top quartiles. Like Case Study 3, it has pre-16 outreach activity across all four categories, but its overall spend on access is around three times higher. Primary data was collected from two widening participation managers (one with specific pre-16 responsibility and one with specific evaluation responsibilities), one of whom had a background in scientific methods

and statistical analysis from their doctoral studies. Their evaluation was the most obviously structured of any of the case studies:

"It's quite challenging [...] We started the whole system approach to evaluation when I came into post [...] and the rationale was to bring together a whole picture of what we do. We've been trying to build capacity for evaluation within the team and to share best practice across different programmes or teams. We might put on small training sessions or highlight research findings about evaluation practices. We do this as a team, but also through WP network events that we host here three times a year."

Evaluation is generally undertaken by practitioners and is embedded within the activities themselves around a plan that incorporates monitoring alongside formative and summative forms of evaluation; a core set of questions is used. However, the HEP is feeling its way with pre-16 evaluation, especially with respect to the complexity of interventions experienced by young people and the time-lags involved:

"I would say the evaluation of our pre-16 work is less research-informed than other areas of our evaluation work [...] our summer school evaluations are more likely to be underpinned by others' research. Less so for low-intensity activities like one-off campus visits. So, the research suggests that high-intensity activities are more likely to have impacts on lower age groups. But overall for our pre-16 work there seems to be less research and guidance published."

"In relation to pre-16 outreach evaluations it feels like universities share their approaches less. There is a smaller field of knowledge to draw on [...] There is an expectation that we will do more work with pre-16 learners, such as attainment-raising activities, but there are lots of discussions going on about how we then measure attainment; what indicators do we use?"

"We find it quite straightforward to measure short-term impacts of outreach on knowledge and behaviour, but we're a lot less confident when it comes to measuring medium to long-term impacts on young people [...] This opens up other challenges because during this longer time span the young people will have participated in other activities so how can you then identify the impact of one of these activities? Ultimately, we have to take a pragmatic approach."

The institution is a member of HEAT, but will not receive any data for several years; they identify many of the practical challenges also raised in Case Studies 2 and 3:

"We've learned that tracking students across different programmes is not easy. The quality of this data would be drastically improved if we used the unique pupil number."

- The HEP provides a wide range of **campus visits**, targeting across primary and secondary phases and by subject. These are mainly evaluated through end-of-event questionnaires from the young people and teachers. These have a formative focus and are designed to be commensurate with the scale of the visit. The HEP would like to undertake more longer-term evaluation of impact, but recognise the difficulties in disentangling the impact of individual activities when young people may be involved in many.
- The focus of the HEP's **mentoring programme** is not specifically on HE, but on supporting the educational attainment of children in care, especially through growing motivation, confidence and self-efficacy. The programme is small and built around engagements with institutional staff and students. Evaluation is through end-point questionnaires that ask them to reflect on changes in their knowledge, skills and confidence. Feedback is also sought from social workers, teachers and carers.
- The HEP offers a residential **summer school** for young people from targeted schools who teachers expect to have relatively high attainment at KS4. Evaluation is focused on end-of-event questionnaires from pupils and teachers. The former are similar to those used for the mentoring programme, while the latter address learning outcomes. The institution is currently considering moving to a pre-post design to provide a clearer evaluation of immediate changes resulting from the summer school, as well as looking at longer-term outcomes.
- A TSO runs an **academically focused activity** on behalf of the HEP, based around a combination of tutoring in schools and campus visits. The evaluation for this scheme is carried out by the provider, with the HEP receiving an annual report.

The HEP also provided information about what they consider to be their 'flagship' pre-16 outreach work in the form of an incremental programme that lasts from Year 7 to Year 11. This involves a series of linked campus visits for small groups of 'talented' young people from disadvantaged backgrounds in target schools; the institution feels that this form of campus visit is distinct from those discussed above, partly due to the integrated learning outcomes that are woven through the individual visits and the strong sense of a cohort. This programme has its own evaluation co-ordinator who supports colleagues rather than undertaking the evaluations directly. This was felt to have some specific challenges around partnership working:

"A challenge is school relationships, so perhaps we have a really good link teacher in a school but then that link teacher moves on and we can quickly find that the school falls off the programme."

However, it also opened up opportunities for more long-term and longitudinal forms of evaluation work that also have an experiential value for the young people:

"For our flagship pre-16 programme we are keen to introduce learner focus groups when they are back in their schools after the events. We think this would help them to reflect back on what they learned and how they've used it when they are in-between their annual visits to us. It would also serve as a bit of a primer for their return the following year."

The institution provided its core questions for young people and teachers and copies of the evaluation questionnaires used within their flagship integrated programme. They also provided an annual report that promotes various aspects of their access agreement spending to schools and other stakeholders.

3.5 Synthesis

The four case studies in this section were designed to be broadly typical of a range of HEPs with significant pre-16 outreach work and an approach to evaluation that appeared to be somewhat stronger than average. They are not necessarily intended to reflect the very best practice, but there are clear elements in each case study that demonstrate strengths that will be instructive for other HEPs, as well as shared challenges:

- **Focus on change.** All four case studies had a clear focus on the need for activities to instil change and that evaluation needed to engage with 'measuring' this change in some way. In two instances, there was a strong emphasis on pre-post designs at the individual level, allowing for a specific assessment of how each person had changed in their knowledge, attitudes or planned behaviour. This contrasted with cohort level evaluation in one case and reflective accounts of change in the other. One case study had a specific 'theory of change' approach to evaluation, but one was actively considering it and it was implicit in two of the others.
- **Consistency.** There was a theme running through three of the case studies around the need for a consistent approach to evaluation that allowed for learning to be shared within the team and for different activities to be compared. In particular, this included the use of core evaluation questions and, in two cases, the use of a formal framework for evaluation.

- **Forms of analysis.** None of the case study HEPs was engaged in forms of analysis that would enable an assessment of the counterfactual – i.e. they were not using experimental or quasi-experiment designs with control/comparison groups. Two of the case studies specifically identified this as a weakness that they understood and that they were seeking to rectify. More broadly, the analysis undertaken across all four case studies was descriptive in nature, with only one using inferential statistics (another alluded to testing in passing within a written report).
- **Priming and placebo effects.** Two of the HEPs were sometimes collecting additional data about changes in attitude with a delay after the activity to see whether the changes were sustained. One of the reports provided showed a clear priming effect within this self-report data, with initial improvements declining sharply with the passage of time. The other two case studies did not appear to have a means to assess the relative scale of priming and placebo effects (see Section 5).
- **Role of tracking data.** All four case studies were members of HEAT – one for some time and three joining quite recently. All saw tracking data as being additional to their other evaluation efforts and there were different levels of confidence about what questions it would be able to answer. One was keen to develop a quasi-experimental approach to analysis, while two of the others were concerned about the ability to draw meaningful conclusions over long time periods, especially given challenges with data collection (see below).
- **Data quality.** A range of issues were raised by the case study HEPs, broadly echoing those discussed in Section 2: lack of (protected) time, variable levels of support from schools, validity of self-report data, obtaining consent for data use and the ability to link young people over multiple activities. One case study discussed how they felt that they were not evaluation experts and so were unsure that they were using the 'right' questions or analysing the data appropriately.
- **Wider purposes of activities.** Three of the case studies reflected on the wider importance of some pre-16 outreach activities beyond their direct measurable impact on young people, either as a springboard to more significant future engagement or to provide a responsive service to schools within a broader partnership.
- **Targeting, comparison groups and deadweight.** Two of the case studies were explicit about their efforts to monitor the young people attending their activities to ensure that they matched the specified priority groups, especially when targeting was mediated through schools. While this is an important activity in its own right, the 'tighter' the targeting of an activity, the less scope there is for the construction of valid comparison groups for experimental and quasi-experimental designs. There was also

evidence for 'deadweight' in the reports provided by two of the case studies, with nearly all of the young people saying they intended to go to HE *before* the activity, bringing into question the scope for transformative impact.

Section 4: Interviews with TSOs

Summary

Despite the diversity in the TSOs interviewed, there were some common elements that are particularly salient in the context of this project:

- They tend to focus on a **narrow and clearly defined set of activities**, in contrast to the broader portfolios of most HEPs.
- These activities are generally supported by a **detailed theory of change** that both guides the activity and provides a framework for evaluation; this is often grounded in the research literature.
- They tended to identify similar **challenges to evaluation** to those outlined by HEPs, including long timeframes, disentangling impact in complex fields and cognitive biases such as the Dunning-Kruger effect.
- Due to their limited scope for engagement with young people over time, they tend to focus on evaluating **short-term intermediate outcomes** that are understood to have value for a young person's future life chances – these tended to focus on psychological constructs such as self-efficacy.
- Partly due to the competitive marketplace, organisations focus on quantitative data that can be used to **evidence relevant forms of change**, although few (or maybe none) are using designs that are truly causal due to data constraints.
- Despite this quantitative focus, there is also strong value placed on the **experiential knowledge** of experienced staff, linked to a wider reflexive and formative approach to evaluation and activity development.
- Many of the organisations showed signs of having an **evaluation-led culture** that saw evaluation as an integral element to justifying and improving all elements of their operations – this was in contrast to the delivery-led approach used by most HEPs.

4.1 Introduction

Telephone interviews were conducted with 11 TSOs, nine of which were charities or social enterprises with a core programme of activity; the remaining two were umbrella organisations representing networks of schools and other organisations with an interest in education outcomes. Interviewees were most often senior managers or had some responsibility for evaluation activity within their organisation. Interviews were transcribed and analysed thematically using NVivo. Organisations also made available examples of their

evaluation activity for reference, including annual reports, external evaluations and evaluation frameworks.

All deliver or support pre-16 outreach activity intended to support progression in education or social mobility, and work with HEPs and NCOP consortia in some capacity, as partners, co-deliverers of activity, funders or a mixture of these. Due to resource constraints these organisations were identified through a mix of convenience, purposive and snowball sampling and, as such, should not necessarily be considered representative of TSOs in this field, although efforts were made to ensure a reasonable spread by size, type and location.

4.2 Overview of TSOs and their activities

Participating organisations varied in their size and structure, ranging from charities with no paid employees to social enterprises with turnover exceeding £1 million. Activity was delivered through a range of organisational structures such as franchise models, regional 'hubs', working in partnership with universities or schools and models of direct delivery to schools and young people. There were a variety of activity types including: mentoring; tutoring; university and workplace visits; in-school talks and workshops; academic enrichment and masterclasses. Some also delivered activity directly to teachers and families. All except one organisation delivered or represented deliverers of activity that covered both pre- and post-16 learners. Most pre-16 activity targeted secondary school pupils, though three also deliver activities with primary school pupils. Many organisations had started out working with post-16 students and had subsequently adapted, in content and/or delivery structure, for younger pupils. Over half of participating organisations had been delivering activity for over 10 years and all for a minimum of two years.

Most organisations we spoke to deliver a narrow range of activities and they tended to specialise in one model of delivery. Where they delivered multiple *types* of activity, these were often connected in a specific *programme*. Some spoke of a need to distinguish themselves from other organisations working in similar areas – others referred to a unique selling point or 'specialism'. An implicit distinction emerged between specialising in content (often focused on providing detailed and specific information and advice where there was a 'gap') verses specific forms or styles of delivery (e.g. mentoring, academic enrichment, online engagement). The quality and distinctiveness of their 'offer', whether delivery or content based, was seen to characterise the organisation, particularly in terms of their relationship with young people or partners.

Interview participants described a range of intended outcomes for their work – at one end were organisations who focused on the 'fair access' agenda and progression into highly selective HEPs and, at the other, the objective was to help engender social mobility or to ensure that participating students made an informed choice about their future direction, HE or otherwise. Many fell somewhere in between, acknowledging a mission to encourage HE

progression, but balancing this against the identified needs and desires of individual pupils and schools:

"I mean, fundamentally, the mission is there to help us think a little bit more holistically I suppose. And I think maybe once upon a time, that mission might have felt internally, as a little bit more like every pupil going to a top-achieving university. But, actually, there's a real recognition that [...] isn't the preferred route for everyone, and everyone should be treated as an individual." (TSO7)

In targeting participants there was a continuum from no targeting, targeting at school level to targeting specific types of students within schools. Some emphasised elements of self-selection for pupils, with varying insistence on specific criteria. Common targeting criteria were eligibility for free school meals, family history of HE and school or pupil postcode-linked deprivation indicators, though some also referenced gender, ethnicity and attainment-specific target groups. Those with outcomes focused on highly selective HEPs also considered attainment in selection but tended not to proscribe a specific 'level', particularly for pre-16 learners, relying more on teacher assessments of 'potential'.

The organisations drew on a variety of approaches to achieve these outcomes in their interventions. Some were designed around an implicit deficit or barrier model and attempted to address participants' perceived lack of cultural capital, knowledge and/or familiarity with HE. Other interventions supplemented school-based provision with enhanced information or advice provision. Many focused on development of skills relevant to academic progression, such as age-appropriate academic writing, oracy, and research skills. Utilising mentors or role models to support, guide or influence young people was a common approach to delivery. Interventions varied in their format; some aimed at individual students, particularly those with a mentoring or individual guidance focus, while others were designed for group delivery. In the same way, some were designed as a one-off engagement, while others were short-term to long-term in various degrees of intensity. Whilst all expressed some preference for longer-term or repeat engagement with pupils, it was recognised that this was sometimes dependent on the priorities and circumstances of schools:

"Because that's the thing, we're obviously dependent on schools taking part, and whilst actually the same schools do sign up each year they want to put different pupils on the programme because obviously, they want to make sure, you know, different pupils are having those experiences." (TSO1)

Pre-16 activities were viewed as often less intensive than those for older age groups, either in terms of length or depth of engagement and designed to be more generic than post-16 activities, focusing on developing generic skills or on introducing key concepts, seen as foundational for later more intensive interventions:

"We basically have a ladder of understanding of what is needed in terms of interventions at each different age. So, depending on which of the strands we're working in, we will have key messages that are relevant to different age groups." (TSO5)

Many of the organisations we spoke to reported drawing on an evidence base to inform the design and delivery of their interventions, including research from academic sources or other TSOs. Indeed, a number described making their own research and evaluation outcomes available for external audiences. In other cases, activities drew heavily on practitioners' experiential knowledge from a history of delivery and working with young people.

4.3 Approaches to evaluation

The variety of activities, delivery models, structures, partners and target audiences of organisations, combined with the necessity for them of 'unique' content or delivery means that few generalisations about 'types' of TSOs can be made from these interviews. Perhaps predictably, organisations that had more established activities, tested in different contexts, as well as some stability in funding, tended to talk in more detail about the rationale for their activities and evaluation. These organisations had sometimes been through processes of programme review and had specific roles or resources to support evaluation. However, there were examples of excellent practice in development, delivery and evaluation of pre-16 activity across interviewees, regardless of how established they were.

Table 8: Profile of organisations interviewed

	Size (paid employees)	Income (most recently reported)	Delivery model	Evaluation approach
TSO1	20+	£1m+	Hub	Highly developed
TSO2	20+	£0.5-£1m	Partnership	Highly developed
TSO3	<10	£0.5-£1m	Franchise	Pragmatic
TSO4	50+	£1m+	Hub	Pragmatic
TSO5	10 to 20	Not known	Direct	Pragmatic
TSO6	<10	<£0.5m	Direct/Hub	Pragmatic
TSO7	n/a	n/a	Partnership/Hub	Pragmatic
TSO8	20+	£1m+	Direct/Hub	Highly developed
TSO9	n/a	n/a	n/a	Pragmatic
TSO10	10 to 20	<£0.5m	Direct	Highly developed
TSO11	<10	£0.5-£1m	Franchise	Pragmatic

From the interviews, we tentatively assigned each TSO to one of two broad types:

- **Pragmatics:** From the 11 organisations, we identified seven as *pragmatics* in evaluation practices, as they worked within strong resource constraints that limited their scope for more advanced methodologies. Nevertheless, these organisations spoke about the importance of evaluation and gave sometimes detailed examples of their evaluation practice, including creative methods, working with external evaluators and developing systems and processes. Whilst most had some strengths in one or more areas of evaluation, they also noted structural, resource and expertise restrictions around their evaluation work, such as balancing the administrative burden of evaluation activity with delivery. The evaluation measures themselves tended to be based around high-level or generic outcomes and often relied on self-reported or assessment data. These organisations might also rely on other less formal feedback mechanisms: a show of hands, markers of engagement or reports back from delivery staff. Some acknowledged the limitations of their evaluation and sometimes expressed a desire for better longitudinal tracking to gather data about participants' post-16 progression and/or other key decision-making outcomes. Some noted that access to HEAT either directly (for some of the better resourced organisations) or via partner HEPs, would provide elements of this – but there was no clarity about how organisations would use and interpret the resulting data.
- **Highly developed:** Our remaining four organisations we identified as *highly developed*, with a deeper resource base and a correspondingly more expansive approach to evaluation. These organisations were typified by theory of change methodologies, using evaluation to drive programme improvement, making the most of internal and external resources and expertise (e.g. former teaching staff developing assessments and engaging with sector-specific advisory organisations) and embedding evaluation practice and reflection in organisational structures. Whilst they were also 'pragmatic' in adapting evaluation to their contexts, these organisations were able to identify a specific and consistent approach to evaluation – one that they felt was embedded within their organisation and informed future activity and evaluation. Where these organisations identified limitations, these were largely external or outside their direct control, such as availability of staff with experience of conducting randomised controlled trials, funding for large-scale evaluations and inconsistency of approaches and access to data across the sector.

The broad contours of the model employed by *highly developed* organisations, we suggest, is symptomatic of wider evaluation trends that are characteristic of other parts of the third sector, both within and beyond education. Appendix 5 contains a case study of one such TSO with highly developed evaluation practices, while the following sections thematically discuss points of commonality between the interviews.

4.4 The use of theories of change

Specifically, all four of the *highly developed* organisations described having a theory of change or similar framework underpinning the design or delivery of their interventions and their approach to evaluation:

"And the set of outcomes that we have developed, the programme, the activities around are qualifying what we call [name of framework]. And both our tuition activities and our one-to-one university mentoring activities are designed to meet these outcomes. Under these four headings, there actually sit 86 [...] shorter outcomes, kind of, basically documenting the journey that we think a young person needs to take from the beginning of Year 10 to the end of Year 13." (TS08)

While some of the *pragmatic* organisations described using a framework to inform their interventions, often in terms of personal development objectives, they did not always base a detailed evaluation process on these objectives. Two of the *pragmatic* organisations described using external benchmarks to evaluate against, such as the Gatsby Foundation measures for the effectiveness of careers guidance¹⁹. For *highly developed* organisations, the theory of change operated at a high governing level, determining the shape, development and delivery of the full range of the organisation's interventions, bounding their overall approach and orientation.

The relationship between the theories of change and the intervention varied. For some of the *highly developed* organisations, theoretical frameworks were applied post hoc to explore interventions in more detail and develop suitable outcomes. For others, particularly where new interventions were being developed, the organisation's theories of change were used to structure and inform programme design and testing. Three of the *highly developed* cases had developed a framework which identified a set of desired short-term outcomes for participating young people. While terminology and the detail of concepts vary between organisations, these can be grouped as affective or attitudinal outcomes (e.g. self-efficacy, growth mindset, motivation or self-confidence), skills or behavioural development (e.g. communication skills, critical thinking or academic behaviours), knowledge outcomes (about HE or specific subjects) and personal resources (e.g. social capital).

Many of the theories of change were calibrated around an 'intermediate steps' approach, rather than high level and long-term outcomes such as HE progression, perhaps as a result of the tendency for interventions to be short-term with no reliable guarantee of developing a longitudinal relationship. As such, there is a clear and direct linkage between the frameworks described by the *highly developed* organisations and the metrics and measures they described using to evaluate impact and outcomes, resulting in the setting of mid-range

¹⁹ See www.gatsby.org.uk/education/focus-areas/good-career-guidance

or micro-level personal outcome objectives. This way of thinking supports a more detailed consideration of how and why an intervention achieves its intended outcomes. By closing the gap between the intervention and measured outcomes, evaluators can make more robust causal claims about the impact of the intervention.

4.5 Evaluation measures

The development of a theory of change and appropriate evaluation measures was often a hybrid approach, informed by both external research (either academic or from cognate organisations) and experiential knowledge. In three of the four *highly developed* organisations, the evaluation function was separate from, but worked closely with, the delivery function. We note that some organisations made a point of emphasising the role of practitioner and delivery teams in sense-checking evaluation frameworks and undertaking cross-sector comparison, by drawing on their experiential knowledge.

The majority of evaluation measures devised were quantitative in nature. In some cases (e.g. progression in academic-related competencies), these were based on pre- and post-assessments of particular academic domains, some of which drew on existing academic measures, such as assessment outcomes. Some attitude measures appeared to rely on self-report data, while others relied on the assessment of a member of staff against key criteria.

Some of the organisations reported using validated tests (such as inventories for assessing self-efficacy or self-esteem). Others reported developing their own measures to avoid the cost of expensive third party tests or to meet other organisational aims. In these cases, again there was a tendency to draw on a mixture of academic and organisational expertise:

"But the principles are: as much as possible we always try to benchmark outcomes. Yeah, we tried to ensure that the, well, the measures we're using reflect both sociologically relevant outcomes and our programme, hence, the self-efficacy scale which we designed rather than just take off-the-shelf."

(TSO8)

There was some reluctance to gather qualitative data for impact evaluation purposes. One organisation noted that qualitative information was collected at various points to monitor a participant's progress (via a one-to-one interview session with a member of staff) or to undertake a process or implementation evaluation – but not to formally assess the impact of the programme. Generally, there was scepticism about the use of qualitative data in evaluating intervention success:

"And I think, to be honest, as an organisation in terms of our external perception we are, you know, we would be happy if we were perceived at the slightly more

science end of that spectrum. As opposed to kind of the arts endpoint, lots of qualitative data and not really any ... you know, like lots of case studies and things but perhaps not any hard data to back it up.” (TSO1)

Another organisation suggested that it was not clear how qualitative data might be used to draw conclusions about the impact of an intervention:

"I would say I'm very pro qualitative stuff, but sometimes it's the quality of the quantitative stuff initially and I would look at something like case studies as an example. You look at people's case studies and they're so thin and there's so little description that there's no way you would be able to produce the programme or even elements of the programme. And I think that's also [...] That's one of the main issues in healthcare as well, is that people run these quality improvement things, but there's no really a, kind of, what you might call 'thick description'. Or lots and lots of documentation around these programmes and then it makes it really difficult to reproduce.” (TSO10)

Experimental designs were viewed aspirationally, or had been attempted, by all of the *highly developed* organisations, even as they acknowledged their inherent challenges; difficulty in establishing an effective control or comparison group, establishing a large enough sample or developing effective measures. Seven of the organisations reported having used external evaluators to undertake aspects of assessment that they were unable to do in-house, because of lack of expertise, resourcing, or to bring in new perspectives.

4.6 Evaluation challenges

The TSOs interviewed described a number of factors that limited or otherwise negatively impacted on their ability to undertake robust evaluation activities.

The first issue, raised by most of the organisations we spoke to, concerned limitations in their ability to access sufficient data to establish impact or benchmark; unlike HEPs, most did not have access to student tracking resources such as HEAT. A number of TSOs also expressed a desire to assess the impact of their interventions against robust benchmark data, but were not adequately resourced to apply for or analyse data in the National Pupil Database (NPD). The aspiration for some was to use this data to establish a control or comparison group for counterfactual analysis. Indeed, a number of TSOs were pessimistic that randomised controlled trials were possible to implement, but noted that they were keen to develop other quasi-experimental designs:

"So how can we trial changes in a more robust fashion which it's very much part of, I think, the directions we want to take, which is different to [...]for a

randomised controlled trial, which is increasingly, to me, wholly unrealistic.”
(TSO8)

In particular, a number of TSOs noted difficulties in establishing the impact of their activities on participants’ academic attainment, where GCSE grade predictions from schools were viewed as unreliable and variable from school to school.

As with many HEPs, the TSOs raised concerns that the long timeframes involved made longitudinal tracking difficult:

“Like we’re talking about five years, seven years, 10 years, and in a kind of reflective manner, going full circle, I think some of the senior people within [organisation] and some of the schools struggle with that, with understanding, it’s so different to every other aspect of schools and performance [evaluating] year on year, and you just can’t in this space of work.” (TSO7)

These timeframes, extending over a number of years in many cases, made establishing a causal relationship between activities and outcome difficult, because of the potential impact of other factors on outcomes:

“There’s a four-year intensive intervention and, like, the chances of holding the world set for four years are... [pauses] that the likelihood of unpredictable external factors vary over four years, are so high.” (TSO8)

“Actually we know that [young] people exist in context surrounded by schools, families and friends and I think that’s where maybe some of that tracking stuff is at the moment a little bit limited.” (TSO10)

As noted above, one solution to this challenge was to focus evaluation on the short-term ‘intermediate steps’ where it was easier to isolate measure change. However, other TSOs noted that typical outreach activities take place in a complex environment, often involving other stakeholders (primarily schools, but also HEPs, other TSOs, the local authority and others engaging with young people), constraining their ability to sufficiently control the selection of participants and to isolate a single causal relationship. The nature of the partnership with schools also limited control over ‘implementation fidelity’ (i.e. what was delivered relative to what was planned) and/or its evaluation:

“I think if you’re doing research and what is basically like a real field, as in like these are actually people on real programmes, you’re always going to have logistical constraints. If you were doing research with schools and you’re a researcher, you can do some things, you cannot do other things.” (TSO1)

Finally, one TSO explicitly acknowledged the importance of the challenge posed by the Dunning-Kruger effect when attempting to collect pre- and post-activity data about personal development outcomes:

"We found that the students would over-estimate their knowledge of something and when you told them about it, they'd realise how little they actually knew. They ended up getting negative results, where like that wasn't actually what the students were telling you at all when you actually asked them about it." (TSO7)

4.7 Formative and reflexive use of evaluation

Given the evident organisational commitment to effective evaluation described by many of the organisations we spoke to, and particularly in *highly developed* organisations, the formative role played by feedback is unsurprising. Many of the contributors were keen to play down a suggestion that they were evaluating for funders. Indeed, one organisation described having to educate their stakeholders about the importance of robust evaluation. Instead, interviewees emphasised the importance of evaluation in their own quality assurance processes, as part of a reflexive cycle of improvement – a continual and ongoing process for many of the organisations – or to ensure they were effectively investing their funding:

"Do we have the right information overall in terms of what [...] who the programme works for and why so that we can inform decisions about programme design? So just for instance, increasing in terms of or changing activities and then finally does the programme work? Right, this, kind of, summative evaluation, is there an impact there; is it worth investing; is the investment worth the return?" (TSO8)

For some of the highly developed organisations, evaluation was important for helping them understand the mechanisms and reach of their interventions:

"When we do our outcome analysis what we're really trying to understand, and as you said before, not only [...] if it works, but who it works for so that we can make decisions." (TSO8)

"We have now got to the point where it is like 'well, that isn't good enough' because we need to go beyond that and really understand what we're doing and why we're doing it in order for us to then tweak the models that we have that we see high engagement in." (TSO2)

At least one organisation described a process by which evaluation enabled them to learn from the failure of an intervention and feed this into the development of other more successful interventions.

Other organisations noted that evaluation outcomes were important in persuading stakeholders to work with them, for example, schools or universities and one organisation acknowledged that evaluation played a role in differentiating their organisation within a crowded market place.

"And I wouldn't call them market forces, but there's ...you've got to prove your worth maybe in a way which, you know, universities traditionally didn't quite need to in quite the same way, although, that's changing." (TSO10)

Overall, however, the dominant approach to evaluation across the highly developed organisations and many of the pragmatic organisations, irrespective of methodology or intensity, was strongly in support of a reflexive and formative process of activity development.

Section 5: Conclusions

5.1 Answering the research questions

The original research questions are used to frame the main conclusions from this project, albeit that the diversity of the sector, the activities offered and evaluation practices mean that some of these conclusions are tentative and the examples given are generally subject to counterexamples within the data collected.

1. What are the intended outcomes for current outreach interventions directed at under 16 year olds from disadvantaged backgrounds where the long-term aim is to widen access to higher education?

There is considerable diversity in how pre-16 outreach is conceptualised and operationalised. Most commonly, this period is seen as an opportunity to increase knowledge about HE and to raise aspirations for it, with targeted groups constructed as having less access to information due to their family and school contexts and less likely to consider HE than their peers. Smaller groups of HEPs conceptualise this in terms of raising expectations (especially HEPs with stronger evaluation practices) or supporting future career pathways (especially FE colleges). These outcomes can be seen as **informing and influencing** current knowledge and attitudes in the hope they will seed behavioural change in the future.

Somewhat less commonly, the pre-16 period was seen as an opportunity to add value to the work of schools in terms of learning and attainment. This conceptualisation was more likely to be found in higher-tariff HEPs and those with higher spending on access, as well as among TSOs. The intended outcomes here could be particularly diverse, ranging from enhancing the science curriculum in disadvantaged schools to boosting GCSE results in English to bolstering young people's confidence or self-efficacy. These outcomes can be seen as **supporting learning** by fostering greater academic engagement and likelihood of success, either directly through additional learning opportunities or indirectly by developing a stronger identity and/or attributes and metacognitive skills that support attainment.

Finally, some HEPs viewed the pre-16 period as an extended element in their marketing activity. Intended outcomes were conceptualised in terms of admissions, with a strong focus on future applications. This was particularly common among, but not confined to, FE colleges, where their outreach work is inexorably linked to attracting young people onto their Level 3 programmes that they might then retain on their own HE programmes. These

more instrumental outcomes can be seen as direct efforts towards **recruiting** disadvantaged young people.

2. What types of outreach intervention activity or activities are institutions using in relation to intended outcomes?

While there is considerable diversity, the project used a framework of four broad categories that accounted for the vast majority of activities: campus visits, summer schools, tutoring and mentoring and academically focused activities²⁰. These are detailed in Appendix 1.

- **Campus visits** were nearly ubiquitous and primarily seen as opportunities to inform and influence or recruit young people while in the physical environment of the HEPs. Their individual impact was seen as low by most HEPs, but they were felt to be important for building school partnerships and providing an initial point of engagement with young people.
- **Summer schools** were often conceptualised as an extended form of campus visit and primarily offered by higher access-spend HEPs for a more tightly targeted pool of young people, either by disadvantage, subject area or membership of a marginalised group (e.g. young carers). However, summer schools were more likely to focus on supporting learning, primarily by building confidence and self-esteem.
- **Mentoring and tutoring programmes** were the least common activity, with just over half of HEPs reporting that they offered them; these were more likely to be HEPs with higher entry tariffs or spending on access. These were generally the most complex activities reported, with careful targeting, prolonged engagement and stronger evaluative practices. They were generally focused on supporting learning by positive role modelling, additional subject input or developing metacognitive skills.
- **Academically focused activities** were very diverse. Examples included revision sessions, after-school clubs, off-the-peg curriculum materials, structured subject enhancement programmes, access to institutional resources (e.g. science labs) and reading-improvement schemes. These again focused primarily on supporting learning, usually through the provision of enhanced curricula or pedagogy.

A minority of HEPs, usually with more developed activities and evaluation, conceptualised their pre-16 outreach within the context of a delivery framework that was incremental as

²⁰ It was noted that some of the activities reported had overlapping purposes with other legitimate goals of HEPs, including marketing, providing volunteering opportunities and building partnerships with local schools.

young people got older (similar to the 'learner progression frameworks' used by Aimhigher), rather than as a collection of unique activities. Unlike in TSOs, however, it appeared that these frameworks were rarely also used for evaluation purposes.

3. What evaluation tools, methods and metrics are being used to measure the intended outcomes?

Most HEPs acknowledged the need to engage with evaluating changes in knowledge, attitudes or skills, rather than relying on simple end-point outcomes. As such, pre-post designs to compare self-report data from young people collected before and after the activity were relatively common, while many of those using only end-of-event questionnaires were asking if the participants *felt* that things had changed as a result of the activity. These methods were supplemented in some cases by analysis of changes in test results, teacher assessments or other forms of academic outcome, although this was substantially less common.

However, very few HEPs were using methodologies that would allow for the rigorous statistical inference of casual effects. Just one reported the use of a randomised controlled trial (currently ongoing), with allusions to quasi-experiments in a handful of cases; these were discussed with respect to the use of comparison groups rather than being formally specified. Similarly, the case studies explored did not use formal comparison groups to contextualise their findings or to provide a counterfactual analysis. This is not to underestimate the practical, ethical and epistemological issues associated with these methodologies (Harrison and McCaig, 2017), but rather to note this omission in relation to the standards of evidence document published by OFFA (Crawford et al., 2017b).

Similarly, there was little reported use of those formal evaluation methodologies that engage with the complexity of social and/or psychological change. A small number of HEPs (including one of the case studies) reported using the Kirkpatrick (Kirkpatrick and Kirkpatrick, 2005, 2007) or NERUPI models, both of which are, to a degree, built around a theory of change approach. The social (or critical) realist approaches advocated by Pawson (2006, 2013) and Yin (2018), which are held in high regard in other social science settings, were absent.

Conversely, a minority of HEPs reported an instrumental approach to evaluation that was focused on collecting activity attendance, tracking consent forms and/or event satisfaction figures or enumerating future HE applications. These were found among all HEP types, but they were most commonly employed by FE colleges.

There was little evidence for the widespread use of established metrics or tools, with most HEPs developing their own; there was some natural convergence around the use of questions like “Would you like to go to university one day?” as a means of measuring outcomes, as well as more hypothetical ones such as “Has this event made it more likely that you will go to university?”. No HEP mentioned any cognitive testing or other forms of validation of their metrics or tools in the survey data, although this was discussed by two HEPs in the practitioner workshop. However, some HEPs are using a common core of questions to ensure consistency and comparability between activities (including two of the case study HEPs). There was a strong desire from some HEPs, especially those with lower access spend, for the OfS to produce and distribute template questionnaires.

The TSOs tended to take a somewhat different approach to evaluation, with much stronger theories of change and greater use of intermediate steps towards participation in HE, partly as their engagement with young people was temporally limited. For example, one TSO at the practitioner workshop discussed how they have worked backwards from the conception of a ‘successful’ young person in Year 11 to determine what these intermediate steps (psychological and sociological constructs) might be. TSOs were also more likely than HEPs to report drawing on (or adapting) pre-existing tools from the research literature. As such, the TSOs generally appeared to have stronger practices in this regard than the majority of HEPs.

4. What are the perceived and actual challenges and barriers for different stakeholders to effective evaluation of long-term outreach?

The project did not find any evidence for a meaningful difference between perceived and actual challenges. This conclusion was tested through the practitioner workshop, with the attendees agreeing that the challenges identified by HEPs through the survey and case studies appeared to represent a realistic assessment; they were also congruent with those identified by TSOs. Some challenges had more ready solutions than others, albeit that these might have been out of reach for those providing data; for example, the allocation of additional resources.

The challenges reported by HEPs through the survey and case studies fell into two broad categories – logistical and epistemological:

- The **logistical challenges** mainly focused on a lack of resources and staff time for evaluation, issues around effective data collection, poor co-operation from schools and concerns about data protection (especially with respect to the new GDPR rules). HEPs were keen for OFFA’s expectations to be proportionate to the complexity of the activities offered and the resources available to the institution; for example, campus

visits were generally seen as being low-impact activities and therefore not appropriate for onerous evaluation. HEPs were also keen for the OfS to take a stronger role in advising and assisting with data protection issues.

- **Epistemological challenges** were more likely to be mentioned by institutions with more developed evaluation provision. The most prevalent, which arose in both the survey and case studies, was a concern about the validity of self-report data from young people (see Question 6). Others included concerns about measuring learning gains and disentangling the impact of individual activities where each makes a relatively small contribution compared to the role played by schools, families or communities – and where young people may be attending activities delivered by multiple HEPs or TSOs. More generally, there were concerns about navigating the long period between intervention and ultimate desired behaviour (i.e. HE application).

The continuity with the general challenges of evaluating outreach identified in OFFA (Crawford et al., 2017a) was noted. However, while the cut-off at 16 is somewhat arbitrary, HEPs generally felt that the longer the timeframe between activity and HE application, the more challenging evaluation becomes. This leads to a greater reliance on measures of long-term intention, the validity of which becomes more questionable in younger age groups, especially given the multiple influences and interventions (including those within the school) to which they are subject and the generally less intensive nature of pre-16 activities (Question 6).

In addition, the practitioner workshop revealed a more strategic level of challenge that had not emerged strongly from the survey or case study data, perhaps as the participants felt more comfortable disclosing in a 'Chatham House rules' environment (i.e. where feedback is not attributable to a specific provider). This concerned the level and nature of **support from senior management**. Several HEPs felt that pre-16 outreach work was afforded less strategic priority than post-16 outreach as there was a weaker link to local recruitment. Others talked about counterintuitively low 'buy-in' to evaluation as a valid pursuit when the outreach team was already pressed to deliver to recruitment targets, sometimes leading to trust issues between those delivering activities and those evaluating them. Finally, frequent changes in personnel (at all levels) were identified as a challenge due to a lack of continuity in developing evaluation practices and long-term planning; there were felt to be advocates and critics who came and went²¹.

TSOs tended to emphasise very similar epistemological challenges to HEPs, although they were less concerned about long time-periods due to their greater focus on short-term

²¹ This is consistent with Stephen Ball's work on 'policy enactment' in organisations (e.g. Ball, Maguire and Braun, 2011).

outcomes and intermediate steps (Question 3). They were perhaps more sceptical than HEPs about the viability of demonstrating causal relationships over many years and their evaluation practices – and their future development – reflected this. Because of the nature of their work, the TSOs did not have the strategic challenges associated with a lack of support for pre-16 outreach or evaluation; rather there was an organisational culture that prioritised evaluation as a guiding principle.

5. What do different stakeholders consider most effective evaluation practice and why?

Tacit within most of the HEP accounts was a high degree of confidence in the basic efficacy of the activities that they were offering; few discussed activities that were being questioned or abandoned²². This is perhaps inevitable given the close connection between practitioners and evaluators in most situations.

Perhaps due to this confidence, most HEPs tended to value formative (and generally qualitative) evaluation practices more highly than summative. These furnished them with the opportunity to understand the ways in which their activities were impacting on young people and to hone them for the future. In some cases, this was quite simplistic and delivery-focused (e.g. around catering), but the most developed evaluation practices gathered data from multiple perspectives (young person, teachers, parents, student ambassadors or HEP staff) and used more expansive methods such as group interviews, focus groups and authentic task exercises. In the strongest reported examples, there was a clearly articulated feedback loop between evaluation and future practice, as well as a concern with content, materials and pedagogy.

Conversely, while some form of summative evaluation was used by nearly all HEPs, it tended to be viewed less positively. For a substantial minority, it was seen as a 'necessary evil' to meet regulatory requirements, with a desire for the OfS to provide directive instruction about the metrics and tools to be used. In most cases, the principal purpose of summative evaluation appeared to be providing descriptive statistics that could be used to justify activities to HEP management and others. Only in a small number of cases was there a more nuanced approach – e.g. the use of inferential analysis, the identification of logic chains or subgroup analyses – or the use of qualitative data for summative purposes.

The reasons for the lower status afforded to (particularly quantitative) summative evaluation appeared to be bound up with the challenges discussed in Question 4. In particular, social complexity, the absence of a robust epistemology to support causal claims, long time-

²² One notable example was from an institution where a well regarded activity with strong qualitative evidence was abandoned due to insurmountable difficulties with collecting quantitative evidence.

periods, difficulties with identifying comparator groups and difficulties with data meant that current evaluation practices are often confined to relatively simple and descriptive techniques; some HEPs (including one of the case studies) were explicit that this was an area of weakness where staff lacked the appropriate skillset. There was strong demand from HEPs for the OfS to define or support the sharing of good practice, as well as to provide or facilitate training.

Perhaps ironically, therefore, some HEPs appear to have a strong understanding of why their activities *should be* effective and potentially how to make them more so, informed by reasonably strong qualitative data triangulated from multiple perspectives, but lack the means to demonstrate that they actually *are* effective. There is likely to be scope to improve qualitative data collection and analysis too (this tended to be informal and reactive with respect to teachers, for example), but the main skills gap within HEPs is around rigorous quantitative methods and analysis; as the practitioner workshop concluded, the challenge is often that there is too much (or the 'wrong') data, but little appreciation of what to do with it.

Within the TSOs, there was a higher status afforded to quantitative and summative forms of evaluations, underpinned by clear theories of change. The ability of such methods to provide readily understood answers to the questions posed by their stakeholders was felt to be particularly valuable, in contrast to the discursive nature of qualitative data. However, these organisations also placed very high value on the development of 'reflective practice' among those delivering outreach activities, such that they were able to adapt and improve their activities on the basis of observational and experiential data. This discourse, common in teaching, was uncommon within the accounts provided by HEPs, and spoke to a somewhat different evaluation culture in the TSOs.

TSOs were also more likely to refer to drawing on prior research evidence for the general effectiveness of certain activities, micro-approaches or psychological or sociological constructs – e.g. mentoring, role modelling or self-efficacy. This enabled them to have strong confidence in their practices and focus more closely on evaluating effectiveness in specific contexts.

Finally, as touched on above (Question 4), the practices within HEPs were shaped to a significant degree by the beliefs, values and skills of individual managers, practitioners and evaluators. Innovations were often based on personal initiatives and were therefore not necessarily robust over time. One protective factor in maintaining momentum was the development of local partnerships and national networks to enable practitioners to support and learn from each other. Several HEPs reported that the NCOP consortia were currently contributing in this way, but there are likely to be additional opportunities too.

6. How valid and suitable are the evaluation tools, methods and metrics (identified through the research) that are commonly used?

In answering this question, it is important to remember that the data provided by institutions is necessarily a snapshot, with different HEPs providing levels of detail to the survey. This report can only reflect on the data volunteered, which may not be an accurate or complete account of the institution's activities or underpinning knowledge. We are therefore cautious when drawing inference from what institutions have *not* said in their accounts.

As a starting point, there is room for substantial optimism about the current evaluation practices during the pre-16 period. As noted under Question 3, most institutions now appreciate the need to **focus on change** as the basis of evaluation, with at least a basic connection between the stated purposes of the activity and the measurement or exploration of that change. There is also a discourse of proportionality that runs through many of the accounts, with the most detailed evaluations being directed at the most significant activities. As discussed under Question 5, the current trade-off for the most developed institutions is between higher-quality qualitative evaluation and relatively simplistic quantitative evaluation due to the data and epistemological challenges outlined under Question 4; there is a will in many institutions to attempt to tackle these and a desire for the OfS to assist. However, a substantial minority of institutions appear not to have reached this level of practice, especially – but not exclusively – among those with a smaller spend on access.

There are also some areas for concern in terms of current evaluative practices:

- **Firstly, there is a potential over-reliance on self-report data from young people.** While the voices of young people are clearly vital, they are subject to the same cognitive biases that affect adults; indeed, many of the accounts critically questioned the validity of data collected in this way. For example, data might be susceptible to the placebo, the priming or Dunning-Kruger effects, as well as social desirability and self-selection biases. There is a strong risk of HEPs and others incorrectly inferring strong internal validity of metrics based on self-report data. This could make some activities appear more effective than they are and others, particularly those that might be more challenging or innovative, less so. In particular, care is needed with causal claims based solely on these data.
- **Secondly, raising aspirations for HE was frequently seen as an essential purpose of activities.** This reached across all HEP types, being slightly more

prevalent in HEIs than FE colleges (whose aspirational focus was more aligned with careers). Given the increasing literature suggesting that aspirations are neither a good measure of likelihood to progress to HE nor a means to raise attainment, this is potentially concerning as aspiration-raising is used as the basis for metrics in many HEPs. In other words, an activity might be successful in raising aspirations, but this might not have any relationship with future application behaviour. One HEP in the practitioner workshop described dropping aspirations as a metric due to its lack of predictive power, while another had shifted to focusing on expectations (or the young person's belief about their parents' expectations) instead.

- **Thirdly, there was some conflation of evaluation, monitoring and tracking.** Some HEPs felt that the use of tracking databases was sufficient to constitute the evaluation of activities, occasionally to the exclusion of other forms. This is potentially a cause for concern, especially in the current absence of a clear epistemology for generating causal claims from these forms of data; HEAT are currently working on this problem. This is not to underplay the potential value of tracking databases, but to caution that they are not a panacea; tracking can potentially create the basis for more robust evaluation, but it is not evaluation in and of itself. In other words, a simplistic relationship between participation in an activity and a later HE application is not strong evidence for a causal relationship. More broadly, many of the accounts drew on unclear definitions of, and distinctions between, evaluation, monitoring and tracking as data management and analysis processes.
- **Fourthly, there was no clear analytical means of handling long time-periods.** Within the scope of this project, the time-span between activity and HE application was between 18 months and 10 years. The challenge of making robust claims of impact over such a period vexed many HEPs, especially given the social complexity of the field and multiple overlapping interventions. The result was an over-reliance on measures of what a young person reported that they might do in the future. Conversely, many of the TSOs focused on short-term intermediate outcomes that could be more readily measured and that were argued (with reference to research literature) to be causal in influencing either attainment or propensity to apply to HE. HEAT's current work to develop new methodologies was noted, although it is currently unclear how this will handle the strong targeting of young people for participation in activities and the difficulties in constructing valid comparator groups.
- **Fifthly, some useful data sources appear to be underused.** Only a minority of HEPs collected data from teachers and parents, and this was often informal or anecdotal in nature. While there are clear logistic challenges, these voices provide an

opportunity to triangulate against the self-report data from young people discussed above – especially with respect to the influential role played by adults in establishing young people’s expectations. Similarly, there was little use of measures from schools such as teacher assessments, test results or predicted grades; a small number of HEPs were using these and so had resolved the challenges, at least to some extent. There was very little evidence for the use of observational data among HEPs, despite its potential to make an important contribution – e.g. through the use of authentic task exercises or reflective journals.

- **Sixthly, there appears to be very limited use of statistical testing.** Aside from issues with advanced methodologies such as experimental and quasi-experimental designs covered elsewhere, relatively few HEPs reported the use of inferential statistical testing in constructing their claims about the effectiveness of activities. More commonly, the reports focused on simple descriptive statistics to demonstrate arithmetical changes – e.g. in the proportion of young people thinking about HE before and after the event. Even among the case studies, only one demonstrated this in their reports, while a second alluded to it. There is a clear role for inferential and/or multivariate analysis even outside of experimental or quasi-experimental methodologies.
- **Seventhly, that conflicting rationales need to be appreciated.** As noted in Sections 2 and 3, many of the activities reported by HEPs for the pre-16 age group had multiple rationales, of which access was only one – and perhaps not always the dominant one. In particular, the importance of building and maintaining partnerships with schools within the wider access agenda may mean that ostensibly ‘ineffective’ activities are valued by HEPs and that metrics and methods that only focus on the impact on young people may be insufficient and/or counterproductive. For example, offering activities requested by schools may lead to the opportunity to create new activities that meet access needs, and so a holistic approach to understanding pre-16 activities is required.

5.2 Concluding thoughts

Given the diversity of pre-16 outreach activities and evaluation practices recorded among HEPs, it is difficult to draw overarching conclusions about what actions are required in the future to improve the rigour of evaluation and, thereby, the quality of those activities. The project team therefore offers the following three concluding thoughts.

Firstly, it is considered unlikely that the current dominant focus on attempting to evidence impact on the desire or intention to enter HE at a point some years in the future (often expressed in terms of ‘aspirations’) can be fruitful. The logistical and epistemological

challenges outlined above militate against the construction of robust causal claims. There is likely to be more value in supporting attainment during the pre-16 age groups, but this is also problematic due to the absence of metrics to measure learning gains and to attribute these unambiguously to specific activities.

Secondly, there appears to be more merit in the approach pursued by many of the TSOs interviewed, comprising the identification of psychological or sociological constructs that are considered as intermediate steps towards raising attainment and/or an acknowledgement of HE as a viable and appropriate pathway. These short-term outcomes have the advantage of being more amenable to rigorous summative evaluation, as well as being more meaningful for schools (which is likely to increase engagement). This is not to argue for an inherent superiority in the evaluation practices of TSOs, who are working in quite different circumstances to HEPs, but that this particular approach appears to be appropriate to pre-16 outreach activities.

Thirdly, there are currently conflicting views about which intermediate steps are most important, both between those TSOs and HEPs engaging with them and within the research literature. These might include attitudes such as self-efficacy (Cummings *et al.*, 2012; Gorard *et al.* 2012), beliefs about education and society, meta-cognitive skills contributing to a 'learning orientation' (Watkins, 2010) or specific forms of career knowledge. As noted in the introduction, this project was originally conceived by OFFA as the first of two phases and the project team concludes that there is strong evidence to support moving to a second phase to explore these intermediate steps in more depth with a view to providing detailed guidance to HEPs. In the meantime, the accompanying document for HEPs offers three 'tools' to help them to assess and develop their practices.

Section 6: Recommendations to the OfS

Major recommendations

1. The OfS should continue with the second phase of work as outlined in the original invitation to tender, comprising work to determine which 'intermediate steps' are most appropriate for HEPs to use to plan and evaluate pre-16 outreach activities.
2. We recommend that HEPs be encouraged to benchmark their evaluation practices against those of their peers with a similar organisational mission and profile of expenditure on access. A proposal for a self-assessment tool has been put forward to the OfS for further development and piloting.
3. The OfS should make the following changes to its guidance to HEPs about their future Access and Participation Plans:
 - a. HEPs should be required to provide separate details through the OfS regulatory processes, covering both pre-16 outreach activities and how they are evaluated;
 - b. A minimum expectation of evaluation practice should be made of HEPs based on their overall access spending – this might be based around the 10 per cent 'rule of thumb' used more generally in the field of evaluation;
 - c. Data on HEPs' spending on evaluation should be collected, whether or not a minimum expectation is established.
4. The OfS should encourage HEPs to engage with the tools provided in the accompanying document and especially to promote the use of a 'theory of change' approach for planning and evaluating pre-16 outreach.
5. The OfS should consider working with an HEP to develop a postgraduate certificate (or similar) in outreach evaluation that becomes an expected standard for staff working in HEP outreach teams.

Minor recommendations

6. The OfS should ensure that HEPs are undertaking both summative and formative forms of evaluation as a guiding principle and should clarify the value of qualitative and narrative forms of data when rigorously collected and analysed, for both formative and summative purposes.

7. The OfS should encourage a clear delineation between evaluation, monitoring and tracking, and work with stakeholders (e.g. HEAT) to devise new approaches to allow long-term tracking data to be used for epistemologically robust evaluation, if possible.
8. The OfS should take into account that many pre-16 outreach activities have multiple overlapping rationales (e.g. building partnerships with schools) and that is acknowledged in guidance around evaluation – i.e. not to assume that measurable impact on young people is the only valid outcome.
9. The OfS should have regard to the important role played by individual managers, practitioners and evaluators in shaping pre-16 activities and evaluation practice within HEPs, especially in terms of strategic support and continuity over time.
10. The OfS should continue to promote local partnerships and national networks to support the dissemination of good practice and as a means of de-risking personnel changes in individual HEPs.
11. The OfS should make greater use of independently facilitated 'Chatham House rules' workshops with practitioners and evaluators to gain insight into the barriers and challenges that they face, both within their organisations and with respect to the regulator.

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Appendix 1: HEP questionnaire

Page 1: Introduction

This questionnaire is part of a project being led by the University of the West of England on behalf of the Office for Fair Access (OFFA). Full details about this project can be found on the information sheet that was attached to the e-mail you were sent inviting you to take part.

The aim of this questionnaire is to find out more about the outreach activities that your institution undertakes with children aged 16 or under, the purposes of these activities and how you are evaluating them. It should take **no longer than 30 minutes** to complete and it may take considerably less than this depending on the amount of activity in this area.

Any information that you provide will be held securely and will remain confidential to the project team. While the questionnaire is not anonymous, the information you provide will **not** be shared directly with OFFA - it will only be shared in coded and aggregated forms. Your institution will not be identifiable in any extracts that we publish unless we ask your specific permission in advance. We will delete all information collected six months after the submission of the final report.

You have until **9th February 2018** to complete the questionnaire. If you complete the questionnaire, but then wish to withdraw your information, you are free to do so until the 24th March 2018 by contacting the principal investigator for the project.

Page 2: Overview

For which institution are you providing information?

What is your name (so that we can contact you for clarification if necessary - your name will not be used in any other way)?

What is your e-mail address?

What is your job title?

Within this questionnaire, we are interested in finding out about the 'OFFA reportable' outreach activities that your institution delivered to young people **aged 16 or under during the 2016-17 academic year.**

We are primarily interested in activities that fall into the following four broad categories:

- Short campus visits (e.g. taster days)
- Mentoring and/or tutoring programmes
- Residential campus stays (e.g. summer schools)
- Academically focused activities (e.g. after-school clubs)

This questionnaire will go on to ask you about each of these categories in turn, with identical questions. We appreciate that these categories may not be perfect in terms of describing the activities that your institution offered:

- If you offered more than one activity in a category, please provide information on each within the boxes on the relevant page;
- If you offered an activity that spans two or more of these categories, please place the activity where you think it most closely fits;
- If you offered any activities that do not fit into any of these categories, please tell us about it in the box on the final page.

Please do also provide information about activities that were delivered through a third-party organisation on behalf of your institution if this activity is covered by your access agreement.

For the purposes of this project, we are **not** seeking data about activities that were primarily targeted at school teaching staff or 'whole school' approaches involving school management.

Page 3: Short campus visits

Short campus visits might include any structured opportunity that young people have to visit your institution, including taster days, information sessions and similar. Please do not include general open days that are available to all young people or visits that include overnight stays.

If your institution offered more than one activity in this category, please provide information about each activity.

Did your institution run short campus visits for young people aged 16 or under **in the 2016-17 academic year**?

- ☐ Yes
☐ No

If 'yes', please briefly describe the short campus visits that you offered. Within your description, please ensure that you provide information about (a) the age group involved, (b) the scale of the activity in terms of the number of schools and young people involved, and (c) how the schools or young people were targeted for involvement.

What were the main aims of the short campus visits? (*Please tick up to three boxes that best represent the change that this activity was intended to cause in the participants.*)

Please select no more than 3 answer(s).

- ☐ Increased knowledge about HE
- ☐ Increased knowledge about career options
- ☐ Improved Key Stage 4 attainment
- ☐ Improved subject knowledge
- ☐ Improved metacognitive skills
- ☐ Improved aspirations about HE
- ☐ Improved aspirations about future careers
- ☐ Higher expectations about HE
- ☐ Higher expectations about future careers
- ☐ Greater positivity/engagement with school
- ☐ Greater engagement with career planning
- ☐ Increased confidence/self-esteem
- ☐ Increased resilience/grit
- ☐ Increased self-efficacy/belief in ability

- ☐ Increased growth mindset
- ☐ Increased/diversified cultural capital
- ☐ Increased/diversified social capital
- ☐ Other

If you selected Other, please specify:

How does the institution evaluate progress against the aims identified for the short campus visits? Please explain what evaluative approaches are used (if any) and why these approaches have been selected.

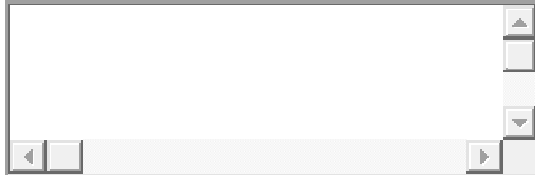
Do you think that your current evaluation approaches for short campus visits are effective and how do you think they might be improved in the future?

What constraints or challenges to the effective evaluation of short campus visits for young people under 16 have you identified, if any?

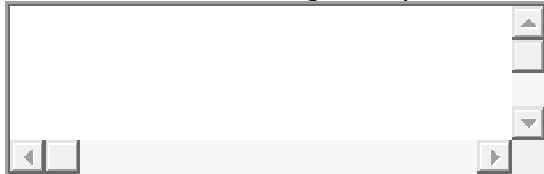
[NB These exact questions were then repeated for mentoring and tutoring, summer schools and academically focused activities – omitted here for reasons of space.]

Page 7: Final questions

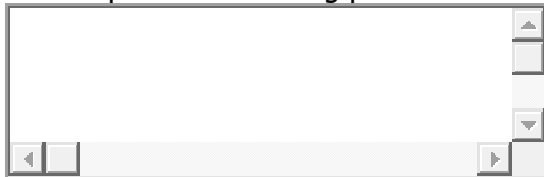
Is there any other information about your institution's outreach activities with young people aged 16 or under that you think might be useful to us - e.g. activities falling outside of the four categories above?

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How does your institution organise its evaluation activity for pre-16 outreach work? For example, is it through outreach practitioners, a dedicated in-house evaluator, through academic staff or through independent external evaluators.

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What additional support from the Office for Fair Access would your institution find useful with respect to evaluating pre-16 outreach work?

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Appendix 2: Summary of pre-16 activities

Campus visits

1994 Group	<ul style="list-style-type: none"> • Information, advice, and guidance (IAG) activities • Two-day event with subject specific activities such as, crime conundrum activity and an engineering island activity for Y7 • Subject-specific and general HE awareness/aspiration-raising events • University experience day for Y5 and 6 • Cultural campus visits for Y6 • Skills for success days for Y7 • University explored days for Y8 and 9 • University uncovered day for Y10 • Revision skills day for Y11 • HE talk and academic taster days • “Why university?” workshops • Students’ life workshop • Myth-busting workshop • Making choices programme
GuildHE	<ul style="list-style-type: none"> • Gallery visits • IAG/ Careers sessions • University taster days • Interactive activities around careers and course • Student finance sessions • Study skills workshops • Y10 summer schools • ‘Life as a student at university’ sessions • Subject taster days • Curriculum targeted workshops • ‘Skills for tomorrow’ workshop • ‘Have a go’ event where students complete hands-on activities such as bakery and food
Million+	<ul style="list-style-type: none"> • Subject specific workshops with an academic • ‘Eyes on the prize’ options event for Y8 and 9 • Campus tour and talks • Awareness-raising programme to inspire primary school children to think about their future • Outdoor learning days for exploratory learning • Campus trails and treasure hunts • Experiential and awareness days • Attainment and aspirations raising events • Introductory talk about university, campus tours and activity • Access to professions taster days
FE Colleges	<ul style="list-style-type: none"> • Campus tours • Taster days • STEM visits • Subject-based workshops • Master classes

	<ul style="list-style-type: none"> • Women into engineering and construction sessions • Men into early years and healthcare sessions • Young artists activities
Non-Aligned HEPs	<ul style="list-style-type: none"> • Campus tours • Generic and subject taster days (students' life talk, fun activity, and subject session) • Subject-focused workshops • Watching a student performance/rehearsal • Talks on training routes in performing arts • Workshops to deliver skills for performing arts • Introduction to university sessions • Advice on option choices sessions • Aspirational and core skills sessions • 'Why go to university?' talk • Awareness-raising days • Y7 challenge days • 'Splendid' event for students with specific learning disabilities • Subject tasters • Enrichment and activity days • Discovery days linked to HE progression and careers • Taster days as part of the government's Agri-Tech strategy • Open days, with a specific focus on engineering, design, and creative industries • Mini taster session and full campus taster days • Careers fairs
Russell Group	<ul style="list-style-type: none"> • Introduction to HE days • Campus visits and talks • Lecture on STEM • Into university events • University safari • Investigate your future • HE awareness activities • Science education visit • Pre-16 student conferences • Subject specific events, such as, be a scientist for the day, chemistry school labs, animal and plant sciences • Discovery days • 'Why HE?' day events
University Alliance	<ul style="list-style-type: none"> • Campus visits (include student life and finance talk, uni budget challenge, uni interview skills) • Dream, plan, achieve project • Y10 passport day • Pre-16 roadshows (gamification to engage pupils in developing their knowledge and understanding of HE) • Routes into FE summer schools • Family fun day • STEM outreach activities • HE experience days • Aspiration days for pre-16 pupils

Mentoring and tutoring

1994 Group	<ul style="list-style-type: none"> • Mentoring programme for pupils at risk of being excluded (Y10 and Y11) • GCSE maths and English mentoring (300 Y10's) • E-mentoring through the 'Brightside' platform (35 students aged 14/15) • Sustained engagement e-mentoring programme (40 Y10)
GuildHE	<ul style="list-style-type: none"> • Mentoring programme for those unsure about HE (50 pupils from Y10, 11, 12, 13) • Green Apples mentoring project (30 Y9 students) • Mentoring programme with Y11 students after they have attended Y10 summer school
Million+	<ul style="list-style-type: none"> • Student tutoring scheme for KS3 and KS4 pupils (55 tutors across six schools) • Mentoring programme through Aimhigher scheme (26 mentors across nine schools working with 134 learners) • Primary reading project (100 Y6–9 pupils) • Student support on GSCE revision programmes (Each ambassador works with up to three Y11 pupils) • 'Get Ahead' programme with Y9 (Sessions covered skills, strengths, careers, HE and study skills) • 'Raising the Grade' sessions. Support for Y11 students to try and boost their grade to 4+ (228 students in for maths support; 190 students for English support) • Y9 mentoring from postgraduate students (24 pupils) • 'Right Choice' mentoring programme (84 Y9 pupils from six schools)
FE Colleges	<ul style="list-style-type: none"> • GCSE maths and English supervision • Student ambassadors from FE and HE • Work experience mentoring (three Y10 pupils each year) • Vocational partnerships with staff and college students and YP
Non-Aligned HEPs	<ul style="list-style-type: none"> • Aimhigher mentoring (164 students in 10 local schools) • GCSE tutoring programme (298 students in five schools) • Maths and literacy tutoring in local schools (14 primary schools/six secondary schools) • Mentoring programme focusing on transition to secondary school and raising aspiration (three primary schools) • 'Mental toughness programme' (15-16 year olds) • School mentoring (230 mentees from primary and secondary schools). • Informal mentoring through work experience • Transition mentoring for student with support needs
Russell Group	<ul style="list-style-type: none"> • One-to-one tutoring pairing local school children with students to support their work (256 children/130 volunteers) • Uses international students to help raise cultural awareness and understanding in local schools; 1200 children/35 volunteers • Curriculum-based after school clubs at various locations, supporting local young people in modern foreign languages, maths, drama and homework tasks (220 children/42 volunteers) • Peer tutoring programme (100 undergraduates are recruited to work in around 20 different schools with primary and secondary pupils) • E-mentoring • 'Inspiring Minds' (365 Y10 and Y11 students from 13 schools)

	<ul style="list-style-type: none"> • 'Discover us' programme: 80 undergraduate students mentor 400 pupils from Y9-11 from 16 schools • Cool 2 Be Clever Club (Three visits per year to HE and other educational institutions and external 'trips' for Y5 progressing into Y6) • Aimhigher mentoring (152 students were supported 121 by our undergraduates) • 'Forward Thinking' mentoring for Y10 pupils (160 students were mentored 121 undergraduates) • Students in Schools programme where undergraduates go to schools and act as classroom assistants for KS3 and KS4 pupils • Students placed in 70 primary and secondary schools in West Yorkshire to offer young people subject-specific support. • Forty-five students were recruited and trained as face-to-face mentors and were allocated mentee students in local schools • Mentoring and tutoring (255 sessions were completed in which 18,223 young people from Y7-11 benefitted from these activities in 2016-17) • Group mentoring project for Y10 pupils within local school (76 pupils) • The Big Deal competition where students are mentored by a business mentors to develop a product (146 Y9 and Y10 pupils)
University Alliance	<ul style="list-style-type: none"> • The 'Mentoring Scheme' (165 Y9-11 pupils in 10 schools) • Student tutoring support in English, maths, and science (387 students from Y7-11 across six schools) • Mentoring for 'Looked After' children (Y10 and Y11) • Year 10 mentoring (seven schools, 150 pupils) • Mosque Mentoring: students in the local community attend free mentoring subject specific sessions to prepare them for their English and maths SATS and GCSE's (35 students from Y5-12) • Work experience for Y10s (Hosted 14 students from four schools) • Mentoring Scheme (60 students from Y9-12 were mentored by university students) • Autumn school mentoring: Sixth form students take part in an intensive one-day training and use the skills to mentor younger students in their own school (12 students participated) • Mentoring programme: Undergraduates trained as mentors to provide support and encouragement to learners from WP backgrounds and help them engage with education (23 mentors worked with 100 pupils) • The Saturday Club (two PGCE students went into the local PRU to mentor 36 students on English and maths)

Summer schools

1994 Group	<ul style="list-style-type: none"> • Four-day, three-night residential for 30 Y10 girls who had an interest in studying STEM-related subjects • Small Piece Cyber Security residential provides an opportunity for 70 students (aged 13-14) • Residential event for looked-after children (LAC) pupils (Y9, 10, 11) • Pre-16 residential summer school is delivered each year. Places are offered to WP priority schools (strands of activity: Genetics - Y10. Three schools, 29 YP; Big World (languages and humanities) - Y8 and 9. Four schools. 32 YP; Medicine – Y10. Six schools, 38 YP)
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	<ul style="list-style-type: none"> • Three-day residential summer school (144 Y10s)
GuildHE	<ul style="list-style-type: none"> • Three-night residential (50 students) • Summer school (60 students aged 16-17) • Residential campus-based experiences for Y10 and Y11 pupils. 75 pupils in total. • Business/Marketing residential event (60 Y11 and 12 pupils for three days and two nights) • Residential for children in care aged 14-19 (18 participants from 13 schools) • Residential for those identified as young carers aged 15-19 (30 participants from 23 schools) • Residential for those identified as young asylum seekers or refugees aged 15-19 (17 participants) • Y10 summer school. There were around 30 students in the group.
Million+	<ul style="list-style-type: none"> • Residential summer school titled 'The Science of Life' as part of the Aimhigher offering (pupils from 30 schools) • NCOP residential (93 learners targeted from specific BME groups) • Y10 residential summer school, for 45 WP students.
Non-Aligned HEPs	<ul style="list-style-type: none"> • Aimhigher Unifest (53 WP students attended all were in Y10) • Eight young carers aged 13-16 from six schools, targeted by Hillingdon Young Carers • Two four-day residentials for Y9 students • Y10 and 11 one-night residential. 100 places offered nationally, WP students prioritised • Young Carers Project: Bespoke activities to promote HE and raise aspirations, as well as enable these young people to see the support offered to them at university. • Two-three residentials per year with 60 attendees.
Russell Group	<ul style="list-style-type: none"> • Y11 Summer Residential designed to introduce local young people to HE (75 YP) • Night at the Museum: a) Y8 students; b) 139 students from 36 schools • University Survival Guide: a) Y10 students; b) 324 students from 55 schools • Residential summer school (34 students in Year 11) • Residential summer school for Y10 learners. The event was four days and three overnight stays; 58 learners attended the event from six different schools. • Discover Us: 240 Y10 pupils attend one-night residential as part of the programme. • Y11 residential summer school for 109 students • Y10 residential: 100 attend a health-related summer school, 50 a residential linked to progression to professions and selective universities, 50 in partnership with Aimhigher. • Transition Programme - a 12-month programme for WP students during Y11 (120 students) • Faculty-themed three-day, two-night residential events for Y10 students. Typically around 100 attendees. • The university hosted 13 events for pre-16 students in 2016-17 benefitting 497 students. Students participating ranged from Y7-11.

	<ul style="list-style-type: none"> • An annual residential aims to give local school pupils a taste of university life. The three-day event combines the three main elements of university: Academic Life, Social Life and Student Support (100 Y10 pupils from WP schools). • Shine programme: three-day residential for Y10 pupils. Scale: 240 Y10 pupils from 22 schools.
University Alliance	<ul style="list-style-type: none"> • Summer Breaks: Four-day, three-night residential experience for Y10-11 students from fair access target groups (169 pupils from 20 different schools) • Looked After Children Summer School. Twenty students involved targeted from local North West WP schools and through local authorities. This is a two-day, one-night residential. • Two-night residential for 55 Y10 pupils. • A Year 10 summer school residential (60 students) • Delivered three residential Summer Schools: 1. Y7 Summer School: 42 pupils from eight schools; 2. Y10 Summer School: 46 pupils from 10 schools; 3. Children in Care Summer School: 17 pupils from six local authorities • Summer school for students in Y10. This summer school involved 57 students from 16 different schools. (They try to get a balance of around 30 males and 30 females each year. They try to restrict the number of students from the same school, so that students get to know people from other schools during the summer school.) • Chemistry Camp: Residential summer school based on the Royal Society for Chemistry (24 YP with a passion for chemistry attended).

Academically focused activities

1994 Group	<ul style="list-style-type: none"> • National Art Saturday Club for 13-16 year olds (20 YP from local schools/colleges) • 'Subject in a box': created 10 boxes each focusing on a different subject area. Within each box are all the items that a teacher would need to run a one-hour lesson (2016-17 = 2,300 students from 28 schools) • Study skills workshops (Y9 –11): Electronic Engineering masterclass for a Y9 Girls' Enterprise Day, Y10 Biomedical Science Insight Day, Classics Lecture and Research Panel Day, Studying Physics workshops, critical writing workshops • Futures Advocates (Y7–8) • Computer Science-focused Masterclasses for Y10 students • Media Academy (Year 9–10 2 schools, 50 YP) • Creative Writing Masterclass (Y9. Three schools and 30 YP) • Languages Taster Day (Y10. Ten schools and 120 YP) • Forensics Masterclass (Y7 and 8. Five schools and 88 YP) • Medicine Taster Session (Y3 and 4. Three schools and 151 YP) • Biology After School Club (Y5 and 6. One school, 30 YP) • Crime After School Club (Y5 and 6. One school, 15 YP) • Subject-specific activities (Y7–11. 1,092 students) • Attainment-raising activities in a variety of GCSE subjects for Y11 students • Year 9–10 GCSE Events - 30 days, 600 participants
GuildHE	<ul style="list-style-type: none"> • Subject Master Classes (Ages 12-16; 20 schools) • Subject-focused activities both on and off campus for pre-16 (six schools; 157 students) • Subject taster days (Y10–13; 10–100 students)

	<ul style="list-style-type: none"> • Saturday clubs - art and design, fashion, business and media • Academically focused activities incorporated into the residential and non-residential campus-based experiences (375 students) • A series of pre-mock exam and revision sessions for students (15 Y9 pupils) • Books and Stories: project for pupils in Y7 and 8 to support pupils whose reading age is below their chronological age (17 pupils from two schools) • Code Club – computer programming (age 9-11) • Chatter books - book club (age 8-12) • Study happy for GCSE students • Book nights – e.g. Harry Potter • Hands on History – Archive and Archaeology team • Science week - full STEM programme
Million+	<ul style="list-style-type: none"> • Creative Forces Days (117 young people of various ages in the pre-16 age group) • Study skills interventions, both in school and off-site to 358 young people from eight target schools • Business Conference for 44 Y10–11 pupils • Campus expert sessions for KS4 and 5 (100 sessions completed on average) • Eighty schools engaged 5,000 pre-16 learners in academically focused activities. These were tailored to the specific subject areas. • One-day subject specific events (Science Circus, Sports Focus Day, Politics Matters) and a Junior Leadership programme which targets 40 young people for 12 individual subject sessions (2,300 pre-16 students; 30 schools) • Make Your Mark framework of activities for Y7–11 (433 students) • Primary Programmers - an after-school club that introduces pupils aged 9 to 10 to coding languages (Python and Scratch; 20 pupils) • STEM Half Term Club - a free two-day club for pupils in the February half term aimed at pupils interested in STEM subjects (15 pupils aged 12 to 13) • Healthcare Insight Day which delivers a range of IAG and taster session to Y10 students who have an interest in the health care professions • Skills Swap: delivered to Y8, a taster day that is designed to specifically challenge the association of particular genders to courses and careers • 500 words workshops on creative writing - 12 schools and 48 students (24 Y6 and 24 Y7) • Creative writing festival: one day focused on Y5 boys only (10 schools 250 children) and two days on Y4 children (12 schools and 503 children) • Bright Sparks Science and Technology Club: these sessions focus on science, technology, engineering, arts and mathematics (STEAM) activities and workshops and aim to raise interest of, and aspirations and attainment towards, these subjects (153 pupils from Y7–11 aged 11-16) • Chemistry at Work: pupils participated in three STEM-related academic sessions to raise their awareness of STEM and chemistry in particular; 117 pupils from Y8 (aged 12-13) • Science and Technology Challenge Day: participating pupils attended academic led STEM challenge sessions (96 pupils from Y8–9 aged 12-14) • IET Faraday Challenge: pupils participated in a wide range of engineering and technology activities with a 'challenge' theme (30 pupils from Y8 aged 12-13)
FE Colleges	<ul style="list-style-type: none"> • 'Aspire' programme: 50 pupils experience masterclasses in a range of subjects • One-off activities: these included sport, hair and beauty, and motor vehicle, engaging 30 pupils each time

	<ul style="list-style-type: none"> • Young Chef, Young Hair and beauty therapist activities (Y9, 10 and 11 students) • After-school clubs (Y10 and 11 students) • STEM activities (12 sessions for 12 different schools with 14 students Y 9–13) • Subject-related activities: conservation, media, 3D design, performing arts (12 sessions for 12 different schools with 14 students Y 9-13) • Pupil Premium event to raise aspirations for this cohort who are borderline GCSE C/D (3/4) and/or free school meals • Interactive Fairs (Y9 pupils): faculty areas are put on engaging exhibits for students to try a particular skill or activity (Five schools attended from the local area and 270 students attended) • Sixth form open days: academic subjects provide interactive sessions for Y10 and 11 (450 YP attend from 40 schools) • Secondary school learners visit to experience classroom activities at the college • Academic tasters in STEM subjects for KS3 pupils (149 pupils from nine different high schools) • Children's University for primary age pupils involved 1,559 pupils from 19 different schools. Pupils were targeted on the basis of their interest in participating
Non-Aligned HEPs	<ul style="list-style-type: none"> • STEM workshops (60 students aged between 11–16) • British Science Week: taster sessions for GCSE and primary school children • Science Festival which saw a footfall of 6,000 school children of all ages • Art Design Classes: 15 YP aged seven - 11 years and 12 - 18 years • Creative Literacy sessions: using writing and art processes to make literacy fun • After-school academies in areas such as computing, science and sport (60–70 participants in total) • Curriculum-centred taster and workshop days aimed at Y11 • Graphic Design projects at the school delivered by HE staff and supported by HE students • Urban Scholars Saturday School Programme • Young instrumental groups • Master classes relating to drama and art/design (432 YP in Y10, 11, 12) • Academically focused activities for YP aged under 16: taster sessions, summer schools, and programmes with interventions (Primary students through to Y11) • 'Study Skills for Higher Education', 'Study Skills: Note taking', and 'Study Skills: Revision Workshop': (Y9 and 11 students) • Subject specific Master Class activity in areas such as music, history, STEM subjects, archaeology, physics, computer science and languages across all age ranges
Russell Group	<ul style="list-style-type: none"> • Excellence Hub activities (619 pupils from Y6–11; 51 schools involved) • Further Maths Support Programme (168 Y10 pupils from eight schools) <ul style="list-style-type: none"> • Making Your Mind UP (MYMU): highlighting facilities and progression pathways in business, Creative and Cultural Industries, humanities, science and technology (Y8–9 pupils with a capacity of 60 in each) • University undertook 251 activities with pre-16 groups in 2016-17. The groups ranged from Y7–11 with the events benefitting 17,709 participants • Primary Learning Journey programmes for KS2 students: 148 student volunteers were recruited to run 10 projects delivered in WP target primary schools

	<ul style="list-style-type: none"> • Two long-term projects that promote access into two academically challenging career areas - medicine and law (Y9 pupils) • IntoUniversity programme with 2,397 learners involved in 2016-17 • Masterclasses (nine out of a programme of 40) are for students pre-16. They are 'one off' subject sessions e.g. Physics Hot and Cold • Scholars: a two-year academic enrichment programme for a cohort of 100 Y8–9 students • Brilliant Club: PhD students act as academic tutors in schools across the country. The programme works with primary, secondary and post-16 learners • Reading Club (Y5-6): the pilot project worked with 10 children at a single school and will be rolled out to additional schools as the project grows • Approximately 12 events for pre-16 students delivered by two faculties (Science, Agriculture and Engineering and Medical School) • Scholars programme: encourage pupils from traditionally underrepresented backgrounds to apply to, and succeed at, top universities (Y7–9) • Coding programme for Y7–9 students • Cohort programmes from Y10–13 • Science into Schools: undergraduate students offer practical assistance in the school classroom and helps to engage the pupils in STEM subjects, particularly in their own area of expertise (58 participating undergraduates) • Culture Learning Team: during the year team members engaged with 24,197 primary and secondary school students (not all pre-16) • A programme that works with secondary schools to complement the GCSE curriculum (In 2016-17 it worked with 131 children)
University Alliance	<ul style="list-style-type: none"> • STEM workshops and activities to pre-16s in target schools (1,777 pre-16 students took part in a STEM event in 2016-17 from 30 different schools) • Chemistry for All programme: targets pre-16 secondary age school pupils to raise aspirations and attainment through inspiring chemistry-focused interactions • Write on project: Y9 and 10 attainment-raising initiative for white working class boys (38 students attended its pilot in 2016-17) • Children's University (600 YP) • STEM competition • Study Skills events (Pre-16 activities with 20-30 students at a time) • Different activities related to academic support (Y7–11)

Appendix 3: Aims for different activities

	Campus visits	Mentoring/ tutoring	Summer schools	Academically focused activities
Increased knowledge about HE	79%	27%	71%	29%
Increased knowledge about career options	29%	9%	7%	14%
Improved Key Stage 4 attainment	6%	35%	2%	29%
Improved subject knowledge	21%	31%	20%	64%
Improved metacognitive skills	1%	7%	0%	6%
Improved aspirations about HE	73%	33%	63%	33%
Improved aspirations about future careers	23%	16%	12%	15%
Higher expectations about HE	17%	7%	22%	7%
Higher expectations about future careers	11%	4%	10%	4%
Greater positivity/engagement with school	17%	29%	7%	20%
Greater engagement with career planning	1%	2%	0%	6%
Increased confidence/self-esteem	12%	47%	39%	26%
Increased resilience/grit	0%	9%	0%	4%
Increased self-efficacy/belief in ability	5%	22%	17%	11%
Increased growth mindset	0%	4%	2%	6%
Increased/diversified cultural capital	3%	0%	15%	4%
Increased/diversified social capital	0%	0%	2%	1%
Other	1%	7%	2%	8%

Notes: (1) HEPs were invited to select up to three aims, so the columns total over 100%; (2) the figures in bold/green denote the top three aims for each activity (academically focused activities has a tie).

Appendix 4: HEP case studies

Case Study 1

Data Sources	<ul style="list-style-type: none"> • Interview with WP Manager • Interview with Evaluation Officer • Interview with WP Project Officer • Survey responses • access agreements • Example Evaluation report
Pre-16 Outreach Activity Overview	<ul style="list-style-type: none"> • Y5 Computer Coding Club • Y5 and 6 Reading Club (one school) • Y6 Experience Week (Languages) • School-based sustained IAG programme with one partner school. Annual, whole class workshops with Y7-11. • Medicine and Dentistry Outreach Programme. Y8-13. • Y8 Experience Week (Humanities) • Y8 campus visits (aimed at middle set students) • Y10 Reading Programme (boys only) • Y11 one-week residential summer school (34 students) • No pre-16 mentoring activities.
Evaluation Overview	<p>They have a full-time data and evaluation post based within the WP team (10 members of staff). This role involves the management of the HEAT subscription, including importing and exporting HEAT data, and also the design, implementation and write-up of project evaluations. The current post-holder has a Masters qualification, previously worked as a freelance evaluator and has undertaken CPD training in quantitative research methods to develop her evaluation skills (including a two-week intensive course in social statistics). The Evaluation Officer regularly uses SPSS and NVivo software when analysing WP evaluation data.</p> <p>There are currently no links between the WP team and academic members of staff in relation to approaches to research and evaluation. It was thought that this was linked to there not being an education department in the university. However, professional support with quantitative research methods is provided by a colleague in the Retention Team.</p> <p><u>A range of approaches to evaluation (including)</u></p> <ul style="list-style-type: none"> • Collection of individual monitoring data to assess targeting success • Long term tracking using HEAT (first set of track data for this programme will be available in Spring 2018) • Online pre- and post-event questionnaire including attitudinal scale items with sliders to give a score of 0 (strongly disagree) to 100 (strongly agree), e.g. 'I know what to expect from university'. Differences between pre- and post-activity responses analysed for statistical significance using the Wilcoxon Signed Rank Test. Some additional qualitative questions within post-event questionnaire. • Follow-up focus group with participants • One-to-one interviews with participants <p>In future years, if they are able to increase the number of participants engaged in activities to an appropriate size, they would like to try an</p>

	experimental research design (for example, in reading programmes, assessment of literacy as an indicator of success). With the numbers currently involved, they feel this is not possible.
HEAT Subscription	Yes – they will receive their first set of tracking data in Spring 2018.
Example Evaluation Tools	<ul style="list-style-type: none"> • Baseline questionnaire • Follow-up questionnaire • Focus group questions
Pre-16 Outreach Activity and Evaluation 1 – short campus visits	<p>The short campus visits last from 10.30-3.30. They include a range of HE-awareness-raising activities in the morning, hot lunch in a campus-based restaurant, and in the afternoon a visit to the science education centre located within a working biomedical research laboratory:</p> <ul style="list-style-type: none"> • Aimed at Y8 students • Twelve visits offered per year with a target of 30 students per visit • The number of campus visit days that can be delivered is limited. This activity is only offered to key target schools with which the HEI has an established relationship, or that they would like to develop a relationship with where school-level data indicates a high proportion of WP students. • School-level targeting is based on a combination of three WP metrics – free school meals, IMD and POLAR. • Schools are then asked to target at an individual level by selecting students who are in receipt of free school meals or who would be 'first in family'. Living in a low participation neighbourhood would also be an individual criteria used to measure the targeting success of the activity, but they would not expect school staff to be able to target on this basis (they would know in advance from school-level data whether they would be likely to reach students meeting this criterion, then confirm through the collection of individual-level monitoring data). They aim for a high proportion of the participating learners to meet at least one criterion, but accept that 100 per cent is generally not possible for schools. They do not have an academic attainment criterion requirement for this activity and specifically encourage schools to bring middle set students who are often less likely to be offered this kind of enrichment activity than gifted and talented students. <p>Intended outcomes of the short campus visits:</p> <ul style="list-style-type: none"> • Increased knowledge about HE • Improved aspirations about HE • Higher expectations about HE. <p>The HEP refined their approach to evaluating this activity in autumn 2017. Before this point, they were collecting individual monitoring data for longitudinal tracking using HEAT and undertaking a post-event questionnaire with attending teachers (optional and anonymous). They are still undertaking these evaluative activities as well as gathering data from the participants in-session using the interactive presentation software 'Turning Point' and handheld receivers which the participants use to respond to questions. Some questions are asked only once and are aimed at gauging prior knowledge/experience of HE. Others are asked once at the beginning and once at the end of the morning session and are aimed at gauging changes in attitudes towards HE.</p>

	<p>They are still within the first year of using this approach and will have a better idea of its effectiveness once it has had time to bed-in. They feel that the Turning Point interactive presentations offer a better way of gathering data with the pre-16 age group and in activity of this length, as it acts as a part of the session itself rather than 'taking time out' of the activity for specific evaluation activity (e.g. completing paper surveys), as well as enhancing participant engagement with the presentation.</p> <p>They feel that there is value in short campus visit activity but acknowledge that they will always struggle to demonstrate impact on long-term outcomes (i.e. HE progression), especially when working with students this young. They recognise that it is unrealistic to expect a 'light-touch' activity of this nature to be a major contributor to a young person's educational aspirations or motivation to progress to HE, in the way that family, school or peers are, but they do not think that this means the activity is worthless. For many participants this visit will be their first experience of a university campus and many will not have a family history of attending HE; they aim to contribute to 'demystifying' university and dispelling some negative (or simply incorrect) assumptions that could potentially hold young people back from working towards university. The difficulty is in capturing the impact of something that is just one small part of many influences, but they are trying to get around this by tracking short-term impacts on participant attitudes.</p>
Pre-16 Outreach Activity and Evaluation 2 – residential summer schools	<p>They run a one-week residential summer school (health and science focus) for Y11 learners run in collaboration with another Russell Group university from another region in England. Each HEP recruits 17 students through a selective online application form (34 students in total). All participants spend half the week together at one HEP and the remaining days at the other. Includes practical academic sessions related to different health sciences programmes, university IAG sessions, and social and cultural capital-building activities such as restaurant trips and visiting a climbing wall.</p> <ul style="list-style-type: none"> • Y11 (summer at the end of Y11). • 34 students from state schools across the two regions – no set number of schools. • Targeting is undertaken at the individual level rather than at the school-level, (the only restriction is that applicants must be studying at a state school or college). Applicants must be anticipated to achieve AAABBB/777666 at GCSE (including maths, English language, and either biology and chemistry or double science). They are then prioritised using a points-based system with points awarded for: previous free school meals receipt; first in family; National Statistics Socio-economic Classification 4-7 based on parental occupation; POLAR3 Q1. Special priority is given to care leavers, looked-after children, young carers and students with a disability. <p>Intended outcomes of the summer school:</p> <ul style="list-style-type: none"> • Higher expectations about HE • Increased/diversified cultural capital • Increased/diversified social capital. <p>Evaluation approaches:</p>

	<ul style="list-style-type: none"> • Collection of individual monitoring data to assess targeting success • Long-term tracking using HEAT (first set of tracked data for this programme will be available in Spring 2018) • Online pre- and post-event questionnaire including attitudinal scale items with sliders to give a score of 0 (strongly disagree) to 100 (strongly agree), e.g. 'I know what to expect from university'. Differences between pre- and post-activity responses analysed for statistical significance using the Wilcoxon Signed Rank Test. Some additional qualitative questions within post-event questionnaire. • Focus group with participants on final day of week – part of process evaluation to identify potential improvements to social activities, academic activities and recruitment process. • Debrief with project team – part of process evaluation, within one or two weeks following the event. <p>In the future they plan to develop a theory of change for the programme and explore realistic evaluation approaches, as they think that taking a theory-based approach may usefully add to their evaluation of this kind of activity.</p> <p>They recognise that they work with small numbers in this activity and that that makes meaningful statistical analysis problematic. They are always looking for new ways to measure impact with small groups.</p>
Pre-16 Outreach Activity and Evaluation 3 – Attainment related activities	<p>Reading Club works with learners in Y5 and 6 (from 9–11 years old). The project is delivered on a small scale, targeting those who have excelled in Y5 and those who were below standard in Y6 based on in-school testing.</p> <ul style="list-style-type: none"> • Participants take part in 10 one-hour sessions of reading with a trained student ambassador, on a 2:1 basis (two children to one ambassador). • The pilot project worked with 10 children at a single school and will be rolled out to additional schools as the project grows. • This programme links to the literacy curriculum through the use of age-appropriate texts. <p>Intended aims of attainment related activities:</p> <ul style="list-style-type: none"> • Greater positivity/engagement with school • Increased confidence/self-esteem • Greater positivity/engagement with reading. <p>In the pilot of this project, they undertook a mini focus group with the learners, as they felt this was most appropriate given the young age and small number of participants. They also implemented brief before- and after-surveys utilising an age-appropriate pictorial scale.</p> <p>In future years, if they are able to increase the number of participants engaged in the project to an appropriate size, they would like to try an experimental research design including assessment of literacy as an indicator of success. With the numbers currently involved, they feel this is not possible.</p> <p>As with other activities, the main issue they face is the small number of participants involved, making experimental methods inappropriate.</p>
Pre-16 Outreach Activity and	<ul style="list-style-type: none"> • School-based IAG programme with one partner school - works with every student from Y7 to 11 at one school through

Evaluation 4 – Other activities	<p>annual, whole-class, age-appropriate workshops. Each activity increases knowledge of the journey to university and builds upon previous sessions. Concepts of 'growth mindset' are embedded into all activities.</p> <ul style="list-style-type: none"> • Y6 Experience University Week: Languages (non-residential) – delivered in collaboration with another university, this is a weeklong summer school based half the week at one HEI and half at the other. Thirty participants from a mix of schools. • Y8 Experience University Week: Humanities (non-residential) – campus-based, week-long summer school including academic sessions on a range of humanities subjects and social and cultural capital building activities such as a trip to the Royal Courts of Justice. Students take part in the summer holidays between Y8 and Y9. • Y10 reading programme (boys only), with 12 one-hour weekly sessions delivered at the participants' school (one school participating). Participants also attend one on-campus event and a trip to the theatre. Sessions include dedicated time to read and to write blogs (guided by trained student ambassadors) in which the boys are encouraged to reflect on how they feel about reading. • Medicine and Dentistry Outreach Programme – Y8–13, pre-16 participants engage in one campus-based event and one school-based session per academic year, learning about studying medicine/dentistry at university, about careers in these fields, and preparation for applying to these courses (GCSE choices, etc). Aim is for some participants to attend year-on-year with a maximum of six years' ongoing engagement. • Primary Computer Coding Club – Y5, 10 one-hour weekly sessions based at the school with a campus visit at the end of the programme. Participants learn to code through designing and making web games.
Looking ahead	<p>Case study one suggested that they would find the following things helpful in terms of developing evaluation approaches:</p> <ul style="list-style-type: none"> • Training in using quantitative/statistical methods appropriate to these settings • Detailed best practice case studies • Literature reviews gathering together existing evidence of different activities/evaluation approaches.

Case Study 2

Data Sources	<ul style="list-style-type: none"> • Interview with WP Manager • Survey responses • Access Agreements • Example evaluation report
Pre-16 Outreach Activity Overview	<ul style="list-style-type: none"> • Primary campus visits • Secondary campus visits • Science and Technology Club (extra-curricular for Y7–11 over 12 months) • Y9 mentoring programme • Y11 mentoring programme • One-off science events sponsored by external organisations

	<ul style="list-style-type: none"> • Bespoke academic/subject workshop (requested by individual schools) • No residential summer schools.
Evaluation Overview	<p>They organise evaluation activity through their WP practitioners within the team. They work closely with their Post-16 and Market Insights teams to ensure that they have a collaborative and consistent approach to evaluation and are able to share best practice. Currently the HELOA network is a community for outreach practitioners to share best practice in terms of evaluation methods for outreach events. However this can be ad-hoc at times and relies on members raising 'evaluation' as an agenda item.</p> <p>They employ Kirkpatrick's Four-Level Training Evaluation Model to underpin the evaluation of their outreach sessions and to try to measure effectiveness.</p> <p>All evaluation forms include questions to measure participants' attitudes to HE as follows:</p> <ul style="list-style-type: none"> • I will go to university one day • This activity has changed the way I feel about going to HE • This activity has encouraged me to think about whether I will go to university in the future • This activity has made me want to work hard at school • This activity has helped me to understand the link between education and my future career
HEAT subscription	Yes – new user – won't receive tracking data for another two to three years.
Example Evaluation Tools	<p>Post-event evaluation sheet for primary-school-age learners.</p> <p>Post-event evaluation sheet for secondary-school-age learners.</p>
Pre-16 Outreach Activity and Evaluation 1 – short campus visits	<p>All local pre-16 schools (primary and secondary) within the county were provided with a hard-copy publication outlining the outreach activities that the university offers. Schools from low-participation areas were followed up with direct contact (phone calls, emails and meetings) from the WP manager to encourage their participation in the outreach activities.</p> <p>CAMPUS VISITS 1: Some activities are designed to encourage young people to consider their future education and introduce them to the opportunities available in HE. These activities offer a wide range of interactive sessions which are tailored to meet the visiting schools' individual needs and requirements. These sessions are delivered on campus over one school day. Follow-up assemblies and workshops are often provided in schools following these events:</p> <ul style="list-style-type: none"> • Targeted at Y7–11, aged 11–16 • 2095 beneficiaries • 26 schools attended, all from the North East region and most within one county (local area). <p>CAMPUS VISITS 2: Other activities are part of an 'inspirational suite of activities' to engage Y5 and 6 pupils (aged 9–11) giving an insight into HE. Pupils participate in a wide range of interactive activities, presentations, workshops and subject taster sessions which can be based on the university's current degree programmes and aligned to the KS2 National Curriculum. The majority of pupils were from Y5 and</p>

	<p>6, although some sessions were delivered to pupils in Y2–4 at the school's request.</p> <ul style="list-style-type: none"> • The pupils were aged between five and 11 • 2,499 beneficiaries • 24 schools attended, all from the North East region and most were within one county (local area). <p>Intended outcomes of short campus visits:</p> <ul style="list-style-type: none"> • Increased knowledge about HE • Improved aspirations about HE • Higher expectations about HE. <p>Evaluation Approach: Kirkpatrick's Four-Level Training Evaluation Model is used to evaluate their outreach sessions and to measure effectiveness.</p> <p>CAMPUS VISITS 1: Pupils were each given a paper-based evaluation form with a four-point scale covering</p> <ol style="list-style-type: none"> aspects of the day the student ambassadors and staff supporting the event. <p>All evaluation forms invited participants to give feedback on their attitudes to HE as follows:</p> <ul style="list-style-type: none"> • I will go to university one day • This activity has changed the way I feel about going to HE • This activity has encouraged me to think about whether I will go to university in the future • This activity has made me want to work hard at school • This activity has helped me to understand the link between education and my future career. <p>Pupils were also invited to comment on their experience of the event which provided qualitative data and an insight into their perceptions. School staff were also invited to give their feedback relating to</p> <ol style="list-style-type: none"> the planning and organisation of their visit the event and whether this had met their expectations. <p>Quantitative and qualitative responses were collated into an over-arching evaluation report for each event. This type of feedback gives the WP team insight into participant perceptions and helps them to tailor future activity more effectively.</p> <p>CAMPUS VISITS 2: Paper-based evaluation forms were given to each of the participating primary school pupils. Student ambassadors and university staff were available to support the completion of the forms if required. To assist the understanding of the pupils a three-point scale was used with graphic 'emojis' for pupils to rate their experience of the day. Every pupil was also specifically asked: 'Are you more likely to want to go to university after today?'</p> <p>School staff were also invited to give their feedback relating to:</p> <ol style="list-style-type: none"> the planning and organisation of their visit the event and whether this had met their expectations. <p>Quantitative and qualitative responses were collated into an over-arching evaluation report for each event.</p>
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	<p>They feel their current evaluation methods are robust and effective, but since 2016-17 they have also adopted some new evaluation approaches, moving away from paper-based evaluation forms. These alternative evaluation tools have included a visual 'Post It' wall, 'Message in a Jar' and 'Give me a number'. They felt that these can be adapted as appropriate, following conversations with school staff. They said they are constantly looking for methods to improve their evaluation techniques and identify new (particularly interactive) approaches.</p> <p>Challenges experienced by staff implementing paper-based evaluation forms mainly stem from the time required for the young people to complete them. There is sometimes 'evaluation apathy' amongst the participants who do not take the task seriously or see it as important and a small number of evaluation sheets intentionally 'spoiled' or left blank. This is especially the case for KS4. In some instances, the four-point scale is misunderstood (this is clearly explained within each session).</p>
Pre-16 Outreach Activity and Evaluation 2 - Mentoring	<p>MENTORING PROGRAMME 1: They offer a mentoring programme and invite local schools to nominate up to six Y9 pupils to act as Pupil Ambassadors and take part in six sessions, three on campus and three in school throughout the academic year. The participating pupils work with 'HE Student Mentors' drawn from the current student body to raise their aspirations in relation to HE and create a 'Guide to Higher Education' for use by their peers in schools:</p> <ul style="list-style-type: none"> • Pupils in Y9 (aged 13–14) • 84 pupils participated in the programme from six local schools • The university has historically worked with these six schools on longitudinal mentoring programmes. These programmes had initially been funded by Aimhigher. The university has remained committed to continuing this intensive WP activity with the schools. <p>MENTORING PROGRAMME 2: They also offer a Y11 Mentoring programme for Gifted and Talented learners in one school. They were invited by the school to design and deliver a bespoke mentoring programme for a group of Y11 high-achieving pupils. The programme of six sessions was developed to include an introduction to HE, student life, the UCAS process, informed choice, study skills, and finance and budgeting:</p> <ul style="list-style-type: none"> • Y11 (aged 15–16) • 14 pupils each attended six sessions. <p>Intended outcomes from the mentoring activities:</p> <ul style="list-style-type: none"> • Increased knowledge about HE • Improved aspirations about HE • Higher expectations about HE. <p><u>Evaluation of MENTORING PROGRAMME 1:</u> Prior to the mentoring programme commencing, all participating pupils were invited to complete a 'Skills Audit' and again on completion of the scheme. This tool enabled the WP team to assess where skills and knowledge of HE had improved via the mentoring project. The majority of respondents did see an improvement. After each session pupils were also asked to provide feedback directly relating to the structure and content. This</p>

	<p>enabled the team to directly respond to feedback and use this to improve and develop future sessions. Participants were also asked to complete a final evaluation document at the end of the programme; they were also asked whether it had supported them with their post-16 choices. Teachers were also invited to evaluate the programme via hard-copy evaluation sheets. Data was compiled and used to produce an evaluation report which could be used to shape future mentoring programmes.</p> <p><u>Evaluation of MENTORING PROGRAMME 2:</u> After each session the Year 11 pupils were directly asked (via hard-copy evaluation forms) to give feedback on the content and structure of that particular session. The majority of the feedback was positive and all comments were taken into account when planning the next session to make sure the pupils engaged fully in the programme. Teachers also provided feedback on these sessions verbally or via email and contributed to the content of the programme.</p> <p>They feel that their current evaluation methods are robust and effective and have provided them with data to</p> <ul style="list-style-type: none"> (i) evaluate the planning, delivery and content of sessions (ii) suggest areas for improvement and/or further development. <p>In particular, they feel that the pre- and post-programme 'Skills Audit' allows them to measure increased aspirations towards HE.</p>
Pre-16 Outreach Activity and Evaluation 3 – attainment related	<p><u>Science and Technology Club</u> This provides a combination of both on and off campus activities (the majority are delivered on campus). Club members attended interactive workshops and other sessions on a monthly basis during term time. All of these sessions focused on Science, technology, engineering, arts and mathematics (STEAM) activities and workshops and aim to raise interest of, and aspirations and attainment towards, these subjects:</p> <ul style="list-style-type: none"> • 153 pupils from Y7–11 (aged 11–16) • Pupils were from 20 local schools – however members attended sessions outside of school time (Saturdays and twilight weekday sessions). • Schools in the local county were individually contacted to arrange tailored assembly and sessions to target young people who had an interest in STEAM activities. Outreach staff from the university delivered a short presentation and overview to pupils to promote the club's activities and to generate new members. Members also used word of mouth to invite their siblings and friends to become members. <p><u>Chemistry Careers</u> The Royal Society of Chemistry awarded the university funding to plan and deliver a bespoke Chemistry Careers event. Pupils participated in three STEM-related academic sessions to raise their awareness of STEM and Chemistry in particular:</p> <ul style="list-style-type: none"> • 117 pupils from Y8 (aged 12-13) • From eight local schools • These schools were targeted with the support of RTC North and schools who had existing links with the Faculty of Applied Sciences.

	<p><u>Science and Technology Challenge Day</u> Participating pupils attended academic-led STEM challenge sessions:</p> <ul style="list-style-type: none"> • 96 pupils from Y8 and 9 pupils (aged 12-14) • From eight local schools (recruited by external organisation). <p><u>Faraday Challenge</u> The university hosted a national Faraday Challenge days. Six teams, each comprising six pupils, from various regional schools participated in the challenge in 2017. The pupils participated in a wide range of engineering and technology activities with a 'challenge' theme:</p> <ul style="list-style-type: none"> • 30 pupils from Y8 (aged 12-13) • From six schools • The university targeted schools who had existing links with the Faculty of Applied Sciences. <p><u>Bespoke Academic Workshops</u> In academic year 2016-17 four schools attending campus visits specifically requested follow-up academic workshops as follows:</p> <ul style="list-style-type: none"> • SCHOOL ONE: 100 pupils from Y9 (aged 13-14) • SCHOOL TWO: 29 pupils from Y10 (aged 14-15) • SCHOOL THREE: 15 pupils from Y8 (aged 12-13) • SCHOOL FOUR: 163 pupils from Y10 (aged 14-15) <p>Intended outcomes from academic-related activities:</p> <ul style="list-style-type: none"> • Increased knowledge about HE • Improved subject knowledge • Improved aspirations about HE. <p>Evaluation approaches:</p> <p><u>Chemistry Careers</u> Following the completion of hard-copy evaluation forms for both participants and teachers, data was compiled into a formal evaluation template provided by the sponsoring external organisation. This was submitted to the external organisation along with costs to evaluate both the participants' experiences and value for money.</p> <p><u>Science and Technology Club</u> At the end of each on-campus event, participants are invited to provide their feedback on hard-copy evaluation forms. This is a four-point scale, with '1' being poor and '4' being excellent. This evaluation method is used to inform the planning and development of subsequent sessions. Following feedback from pupils, decisions are made to 'adjust' sessions when developing the programme of activities for the following academic year.</p> <p><u>Faraday Challenge</u> Hard-copy evaluation forms.</p>
Pre-16 Outreach Activity and Evaluation 4	<p>In addition to the above activities, they worked with external agencies to provide bespoke outreach activities for currently underrepresented groups. An example of this would be the programme they developed for young people attending a city Careers Centre. Following a bespoke request from this Careers Centre, they designed and delivered an outreach programme which aimed to raise the aspirations of some young carers who attended sessions at the centre. They delivered two workshops to a total of 18 pupils in Y6-11. Although the numbers attending were not significant, this type of targeted outreach is extremely important in terms of (i) raising awareness of post-16 opportunities for these pupils, and (ii) raising aspirations and</p>

	attainment. Many of these young people had no previous awareness, or family history, of university even at KS4 so these outreach sessions were seen as a valuable way to 'plant the seed' and help them to understand the opportunities available to them. It also allowed the WP team to develop relationships with local community groups and answer any questions which staff had about the student journey and benefits of HE.
Looking ahead	The university said they would find it helpful if OFFA shared best practice/case studies from institutions which they consider to be exemplars in the field of evaluation. They also suggested that OFFA might look to formalise approaches to effective evaluation methods in the field of WP and outreach.

Case Study 3

Data Sources	<ul style="list-style-type: none"> • Interview with WP Manager • Interview with WP Project Officer • Survey responses • access agreements • Example evaluation report
Pre-16 Outreach Activity Overview	<ul style="list-style-type: none"> • Primary school campus visits • Secondary school campus visits • Y10 group mentoring programme (seven local schools) • Y10 residential summer school (aimed primarily at those on the above mentoring scheme) • Humanities Homework Club (community-based) • Subject taster days (Y8-11)
Evaluation Overview	The team has developed a set of core evaluation questions to be included in all evaluation survey tools. These are shared with academic colleagues where the colleagues are the ones delivering outreach and evaluation activities (e.g. subject taster days). For centrally organised WP events the person running the event is responsible for evaluation. They also have a central evaluation coordinator who advises and supports staff and also arranges some of the more significant focus groups and evaluations.
HEAT subscription	Yes – but won't see results from the tracking for another two years or so.
Example Evaluation Tools	<ul style="list-style-type: none"> • Core questions for inclusion in all pre- and post-questionnaires • Summer school pre- and post-questionnaires • Summer school focus group questions • Mentoring pre- and post-questionnaires
Pre-16 Outreach Activity and Evaluation 1 – short campus visits	<p><u>Primary School Visits to Campus:</u> These day events run from 10.00-2.00 for 60 Y5-6 learners. The day includes a workshop, tour, session with student ambassadors and a 'graduation' at the end of the day. In 2016-17 they ran 10 of these days.</p> <p><u>Secondary School Visits to Campus:</u> These day events run from 10.00-2.30</p> <p>Y7 visits - they ran half day whole year events for two schools - at the schools' request - in September as their head teachers wanted to focus on the learners' journey through secondary school and where it could lead them to.</p>

	<p>Y8/9 visits - they delivered three days for up to 100 pupils focused on GCSE options. These days included a theatre performance, workshop and tour.</p> <p>Y10 visits - they offered five Y10 campus visits for 100 students each - including student ambassador workshops, tours and a workshop on post-16 choices.</p> <p>Intended outcomes of the short campus visits:</p> <ul style="list-style-type: none"> • Increased knowledge about HE • Increased knowledge about career options • Improved aspirations about HE. <p>Evaluation approaches:</p> <p>Questionnaires at the end of the day ask about the students' views as to whether they now know more about HE or about the options available to them, or if they think they're more likely to progress to HE. As these days are one-off (though they target the same schools for their programme of activities so some pupils will engage more than once over the years) the WP team just use end-of-day questionnaires to get a flavour of what the participants think and their experiences. They also ask teachers for their feedback on the day visits.</p> <p>They recognise the limited impact that a one-off visit can have – and therefore think the above approach is appropriate. They have tried before-and-after questionnaires to try to see a change in attitudes, however in such a short time scale they suggest it is difficult to claim too much impact from a single intervention. They say that the key for improving the impact of these types of activities is to have more students participate on these as part of a longer-term, sustained programme. The WP team is hoping that their use of HEAT will allow them to see if this impacts positively on learners' HE decision-making and destinations.</p> <p>They find that sometimes students don't complete destination tracking forms completely or correctly (such as not putting – or knowing – their home postcode) so some of the data cannot be used for HEAT, which is likely to limit the tracking data they get. Also with end-of-event questionnaires they find the evaluation activity tends to be rushed – so some pupils automatically tick the 'strongly agree' box without reading the questions, just to get through the form. Also some schools and learner participants leave an event before the evaluation session is complete. Finally, for primary school events they feel particularly limited by not being able to track the younger age students so they tend to just use basic 'smiley faces' to see how much the participants enjoyed the day. In these contexts with younger children they find they get more useful feedback from teachers and tend to focus on this. Also for the primary events, they carry out pre-sessions in the schools before the events so the students know why they are attending. They then revisit the themes during the visit day asking questions to see how much the learners remember from the pre-session. This approach was developed based on feedback and evaluations of previous activities. However, the WP team finds it is difficult to capture this type of data in a useful format.</p>
Pre-16 Outreach Activity	Y10 mentoring: They offer group mentoring sessions in local schools delivered by student ambassadors. Sessions ran for up to 10 weeks

andEvaluation 2 - mentoring	<p>with student ambassadors provided with materials and lesson plans to deliver 45-minute sessions to groups of up to 10 students on HE themes. In 2016-17 they worked in seven schools supporting 150 students. Schools were targeted as being within county and a high priority based on the proportion of pupils on free school meals. They also had to take into account ease of access on public transport to ensure student ambassadors could get there within a 60-minute commute.</p> <p>Intended outcomes of mentoring activities:</p> <ul style="list-style-type: none"> • Increased knowledge about HE • Increased knowledge about career options • Improved aspirations about HE. <p>Evaluation approaches:</p> <p>They used pre- and post- questionnaires with the learners to gauge understanding of and aspiration to HE. They also conducted focus groups several months after the sessions finished to try to gauge longer-term impact. They got feedback from teachers and also tracked participants through HEAT. These approaches were developed in recognition of the significant cost of the scheme and therefore it was felt necessary to have a greater focus on evaluation.</p> <p>They think their current approaches to evaluating mentoring are effective, though they would like to look at impact six to 12 months later so will be inviting some of the students to take part in a Y11 summer school where they will seek to determine how they have used the knowledge and skills they acquired through the mentoring.</p> <p>A challenge is ensuring that the same pupils attend each mentoring session, and also that schools help the WP team to access focus groups of participants six to 12 months after the intervention.</p>
Pre-16 Outreach Activity and Evaluation 3 – residential summer schools	<p>They ran a three-day/two-night residential for 55 Y10 pupils. Initially this was targeted at pupils who had been involved in the above mentoring programme to try to provide sustained interventions and also a forum for follow-up evaluation. To avoid large numbers of participants from one institution, each school was limited to four places. However, only half of the places were taken up by this way so places were then offered to additional key target schools. Schools were asked to target first-generation students, those on Pupil Premium, disabled and LAC students.</p> <p>Intended outcomes of residential summer schools:</p> <ul style="list-style-type: none"> • Improved aspirations about HE • Higher expectations about HE • Greater positivity/engagement with school. <p>Evaluation approaches:</p> <p>Pre- and post- questionnaires, plus informal feedback collected through student ambassadors. They also collect feedback from teachers as to any changes they see in their pupils when they go back into school. They have also conducted focus groups and they offer a Year 11 summer school reunion to determine this group's reflections on their Year 10 summer school experience 12 months later. They also track learner participation through HEAT.</p>

	<p>They feel their evaluation approach is effective, though they would like to get more information from schools as to what impact they see when the students return to school (rather than just relying on occasional informal feedback).</p>
Pre-16 Outreach Activity and Evaluation 4 – attainment related	<p>One of their faculties runs Homework Club where current university students provide support to a wide age-range of learners on a drop-in basis. This operates in a community venue and runs throughout the year.</p> <p>They also offer a range of one-day subject-specific sessions including:</p> <ul style="list-style-type: none"> • Y8/9 modern foreign language (MFL) days focused on pupils before choosing their GCSE options, with an enhancement session in a language they study and a taster in a new language. They offered six days for a total of 600 pupils. • Enterprise days for Y10 pupils with Young Enterprise and developing enterprise skills. They did six days for 60 pupils each. • They ran four days for Year10s in maths, with another two for Y11, for around 40 pupils on each day. • They also offer a wide range of taster sessions in STEM subjects and arts and humanities, targeted at Y8-11. <p>For many of these subject taster days, the university's faculties target schools they already have relationships with.</p> <p>Intended outcomes of subject/attainment-related events:</p> <ul style="list-style-type: none"> • Improved subject knowledge • Improved aspirations about HE • Greater interest in the subject and the options it offers in future. <p>Evaluation approaches:</p> <p>They use core questions which are asked post-event to determine attitudes and confidence in the subject and HE more generally. They also ask teachers for their feedback. They track these learners through HEAT where possible</p> <p>Due to the varied content of the subject taster days, the core questions don't always reflect the specific sessions. Also whilst they feel that teacher feedback on the day is fine they would like to be able to collect any indication of changes in attitude to the subject when back in the school classroom.</p> <p>These activities are hard to monitor and track as so many university staff are involved from across the institution. The WP team sometimes finds out that events are taking place at the last minute or even after the event. They find that this makes it difficult to consistently evaluate these activities.</p>
Looking ahead	<p>They would welcome examples of how different levels of evaluation are being conducted in practice as well as guidance on what they are expected to evaluate in practice and also what OFFA don't expect to see. They would particularly welcome guidance suitable for different evaluator audiences (e.g. WP practitioner trying to evaluate their events, as well as evaluation professionals and what they should be looking to evaluate across institutions to provide the evidence required).</p>

Case Study 4

Data Sources	<ul style="list-style-type: none"> • Interviews with two WP Managers • Survey responses • access agreements
Pre-16 Outreach Activity Overview	<ul style="list-style-type: none"> • Flagship 'Pathways Programme' – a targeted, cumulative, sustained programme of WP activities from Y7-11 • Primary campus visits (targeted) • Secondary KS4 campus visits (not targeted) • Secondary KS4 'Access to Professions' day events (targeted) • Secondary KS4 academic enrichment short events • Mentoring programme for KS4 care experienced learners • Y10 residential summer school • Brilliant Club Scholars Programme
Evaluation Overview	Evaluation is embedded into the design and delivery of all their WP projects and activities to assess whether they have achieved their stated objectives and to explore the implementation process to understand what worked well, what didn't and why. They include a set of core evaluation questions in all of their WP outreach evaluation tools.
HEAT subscription	Yes – but will be a couple of years before they receive their first tracking data.
Example Evaluation Tools	<ul style="list-style-type: none"> • Pre-16 Core Evaluation Questions for all tools • Y7 evaluation form for 'flagship' WP programme • Y8 evaluation form for 'flagship' WP programme • Y9 evaluation form for 'flagship' WP programme • Y10 evaluation form for 'flagship' WP programme • Y11 evaluation form for 'flagship' WP programme
Pre-16 Outreach Activity and Evaluation 1 – short campus visits	<p><u>Primary Higher Education awareness days:</u> Primary HE awareness days last around five hours in total and include an opportunity for learners to meet some current students, take a tour of campus and take part in a hands-on activity linked to the KS2 curriculum with an academic member of staff or current PhD student from the university. Age group: KS2 learners Scale of activity: In 2016-17 five visits took place, from five different schools; 138 learners took part across the five visits. All schools attending were ranked '1' or '2' on the City Prioritisation model: above average percentage of pupils on free school meals. No individual learner-targeting takes place.</p> <p><u>Pre-16 inward campus visits: (not targeted)</u> Inward campus visits for pre-16 learners last around two hours and include a welcome presentation (age appropriate), a question and answer session for learners with current university students and a campus tour. Age group: KS4 Scale of activity: In 2016-17, eight visits took place, from 19 different schools. 637 learners took part across the eight visits. These events are <i>not</i> targeted at either school or learner level.</p> <p><u>Access Professions days:</u></p>

	<p>Inward campus visits for pre-16 learners last around five hours in total and are focused on a specific professional area (e.g. medicine, law). Learners work closely with current students and professionals related to the subject area.</p> <p>Age group: KS4</p> <p>Scale of activity: Two visits took place in 2016-17, from 18 different schools.</p> <p>A total of 74 learners attended across the two visits.</p> <p>These events are highly targeted at a learner level, with attendees having to meet at least one WP indicator to be eligible to attend.</p> <p><u>STEM academic enrichment activities:</u></p> <p>A range of events and activities on campus focused on STEM enrichment.</p> <p>Age group: KS4</p> <p>Scale of activity: In 2016-17, seven different visits took place with 1,027 learners taking part from over 50 different schools.</p> <p>These events are predominantly targeted at WP target schools (Bands 1 and 2 on the City Prioritisation Model) but not all attendees are from WP schools. The only events that have learner-level targeting in place are the events that are for female learners only.</p> <p><u>Humanities academic enrichment activities</u></p> <p>A range of events and activities on campus, focused on humanities academic enrichment including subject insight days</p> <p>Age group: KS4</p> <p>Scale of activity: In 2016-17, five different visits took place with 140 learners attending from 14 different schools.</p> <p>These events are not targeted at either school or learner level though they are marketed strongly to their WP target schools initially.</p> <p>Intended outcomes for short campus visits:</p> <ul style="list-style-type: none"> • Increased knowledge about HE • Improved subject knowledge • Improved aspirations about HE. <p>Evaluation approaches:</p> <p>Evaluative approaches for short campus visits include:</p> <ul style="list-style-type: none"> • Assessment of school/participant demographics, to ensure resources are focused on pupils with greatest need; • Feedback surveys from pupils, collecting data on their reactions, change in knowledge, skills or understanding; • Feedback from teachers on content of activities and the learning outcomes for their pupils. <p>They use these approaches so that the evaluation is deemed proportionate to the intensity of the interventions. They take a reflective approach, aiming for continual improvement and see evaluation data as formative feedback, useful for improving their activities.</p> <p>They feel that their current evaluation approaches are effective and include both quantitative and qualitative approaches. They feel that the use of pupil surveys administered at the end of an activity enables them to get the highest response rate and the use of 'core evaluation questions' across a range of activities enables them to try to</p>
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	<p>understand what pupils have learned and enable them to build up evidence of effectiveness across a range of WP interventions.</p> <p>They suggest that evaluation for short campus visits might be improved in the future by assessing the medium-longer-term impact of these and other interventions. They believe that this could be achieved by the tracking of participants, e.g. through HEAT, to better understand how participants might apply what they learned during the activity (e.g. Did they take on additional activities related to specific subject area? Did they make an application to university?).</p> <p>They acknowledge that while a one-off short campus visit may occasionally have a life-changing impact for individuals, a key challenge is demonstrating any medium-longer-term impact, particularly where young people may attend a range of outreach activities and events during their pre-16 education.</p>
Pre-16 Outreach Activity and Evaluation 2 - mentoring	<p>They run a programme for care experienced KS4 learners in collaboration with another local university.</p> <p>This is a nine-week programme that brings looked-after children together to take part in numerous interactive sessions in a university environment. The sessions provide the learners with the opportunity to develop their confidence and communication skills while raising their awareness of HE. University staff and student ambassadors work closely with young people to build meaningful and supportive relationships. The sessions end with a graduation, where teachers, social workers and carers are invited to celebrate the learners' journey and success on the programme. There are two follow-up reunion events for young people later in the academic year. In 2016-17 they had 15 young people start on the programme and 14 of these learners completed the programme. This programme is only for looked-after children and learners are nominated to take part in the programme by their teacher, social workers or other significant adult.</p> <p>Intended outcomes of the care leavers mentoring programme:</p> <ul style="list-style-type: none"> • Greater positivity/engagement with school • Increased confidence/self-esteem • Increased self-efficacy/belief in ability. <p>Evaluative approaches:</p> <ul style="list-style-type: none"> • Feedback surveys from pupils, collecting data on their reactions, change in knowledge, skills and confidence • Feedback from social workers/teachers/carers. <p>This is not specifically an HE preparation programme and the focus is on developing the skills and confidence of the participants who are in local authority care.</p>
Pre-16 Outreach Activity and Evaluation 3 – residential summer school	<p>Y10 residential summer school.</p> <p>The event was four days and three overnight stays.</p> <p>58 learners attended the event from six different schools.</p> <p>They invite Y10 pupils who are from backgrounds that don't traditionally progress to HE to come and experience life as a university student. Pupils stay in university accommodation, meet new people, experience new academic subjects, enjoy social activities, make new friends and develop new skills. At the end of the week, the pupils take part in a graduation ceremony complete with gowns, mortarboards and</p>

	<p>certificates. The team reports that throughout the week pupils grow and develop from being nervous and shy around new people and places, to being confident in new friendship groups and familiar with their surroundings. They are reported to leave with a greater understating of university life and that it is an option for their future. They use school-level targeting for this event, inviting only high priority WP schools to take part in the programme.</p> <p>They then ask schools to target at the learner level for the places on the programme.</p> <p>For 2017, they requested that pupils needed to meet at least one of the following selection criteria and have the potential to achieve at least five A* - C grades at GCSE (or equivalent):</p> <ul style="list-style-type: none"> • Pupils from families where parents/carers have no experience of HE • Pupils from a care background • Pupils with a disability • Pupils on free school meals • Pupils who are young carers • Pupils who live in an NCOP target ward <p>Intended outcomes from residential summer schools:</p> <ul style="list-style-type: none"> • Increased knowledge about HE • Improved aspirations about HE • Increased confidence/self-esteem. <p>Evaluation approaches:</p> <ul style="list-style-type: none"> • Assessment of school/participant demographics, to ensure resources are focused on pupils with greatest need • Feedback surveys from pupils, collecting data on their reactions, change in knowledge, skills or understanding • Feedback from teachers on content of activities and the learning outcomes for their pupils. <p>These approaches enable them to evaluate the immediate outcomes and impact of the summer school – and as they can collect this data at the event, they feel it enables them to collate qualitative and quantitative feedback from all participants.</p> <p>They think that evaluation of their Y10 summer school might be improved in the future by undertaking a pre- and post-evaluation to enable a more detailed measure of the outcomes and impact (knowledge, attitudes, skills, aspirations) for the individuals who have participated. They feel they could also strengthen their evaluation by assessing the medium-longer term impact of the summer school. For example, to understand any changes in behaviour as a result of the intervention, undertaking further evaluations over time e.g. focus groups/interviews with students/teachers some months after the summer school. Also by tracking of participants, through HEAT, to better understand how the awareness, aspirations and learning during the summer school may impact on future behaviour e.g. Do they make an application to university?</p> <p>A key challenge they face is the time-lapse between any interventions for young people under the age of 16 and when they become HE-ready</p>
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	as this can be many years. The longer the gap the more difficult to attribute any learning or change in behaviour to the intervention/s.
Pre-16 Outreach Activity and Evaluation 4 – attainment related	<p>They have a partnership in place with the Brilliant Club which places current PhD students as academic tutors in schools across the country. They actively market the opportunity for their current staff and students to become tutors on the programme. The Scholars Programme works with primary, secondary and post-16 learners. In 2016-17, they had 14 visits from students taking part in the Brilliant Club Scholars Programme from around 50 different schools. In total 743 pupils attended campus, along with over 100 parents and carers for graduation events.</p> <p>Intended outcomes:</p> <ul style="list-style-type: none"> • Improved KS4 attainment • Improved subject knowledge • Greater positivity/engagement with school. <p>Evaluation of this activity is carried out by Brilliant Club. They receive copies of impact reports for each of their cohorts but they aren't responsible for any of the evaluation of this programme.</p>
Pre-16 Outreach Activity and Evaluation 5 – other activities	<p>The university's flagship WP programme for secondary school learners is a programme which doesn't fit into any of the categories above. This is a progressive programme that includes a short campus visit each year from secondary schools for a small group of highly targeted WP learners (12 per school) from around 50 different high-priority WP schools in the county. This equates to around 60 campus visits a year and engagement of around 3,500 learners each year. They also engage parents in the programme through a welcome evening when students join the programme in Y7 and a celebration and information evening for parents and families of learners in Y9-11. This programme allows learners in Y7 to 11 to participate in a series of academic enrichment and HE awareness activities over time. It is targeted at 'talented' local pupils who have the ability to progress into HE and are from backgrounds that are currently underrepresented. This programme enables students to:</p> <ul style="list-style-type: none"> • find out more about university life • explore the range of degree courses • develop a range of skills that will aid success at GCSE and beyond • Raise awareness of HE teaching, studying and living environments • Broaden learners' horizons with regards to HE and the range of HE institutions • Raise awareness of the variety of subject disciplines available in HE • Introduce learners to real students to build up a 'true' vision of what student life is like • Develop students' skills in team-working, independent enquiry, self-management, reflective learning, effective participation and creative thinking • Provide information and advice to enable informed decision-making about GCSE and post-16 choices • Provide up-to-date careers information and show the value attached to degrees by employers. <p>Individual programme evaluation and monitoring is carried out by programme leads and staff across the WP team/university.</p>

	A dedicated evaluation officer provides support for central tools and systems (to support with targeting and monitoring e.g. City Prioritisation Model, WP database, and survey software) and is a central contact for colleagues in developing their individual evaluation plans and sharing best practice.
Looking ahead	The WP team would value the development of an evidence base for the evaluation of pre-16 outreach to help identify what works and to provide support for institutions in evaluating the impact of their work.

Appendix 5: TSO case study

The organisation

Brightside is a social enterprise providing online mentoring, which each year connects 10,000 young people from disadvantaged backgrounds with mentors who can help them identify opportunities and develop knowledge and confidence. The organisation provides a safe platform to support online mentoring relationships, which enables mentoring to be done at scale. One of the benefits of the online platform mode of delivery is that it facilitates outreach in rural and coastal areas, which have traditionally been neglected by providers of face-to-face outreach activities.

Pre-16 activities

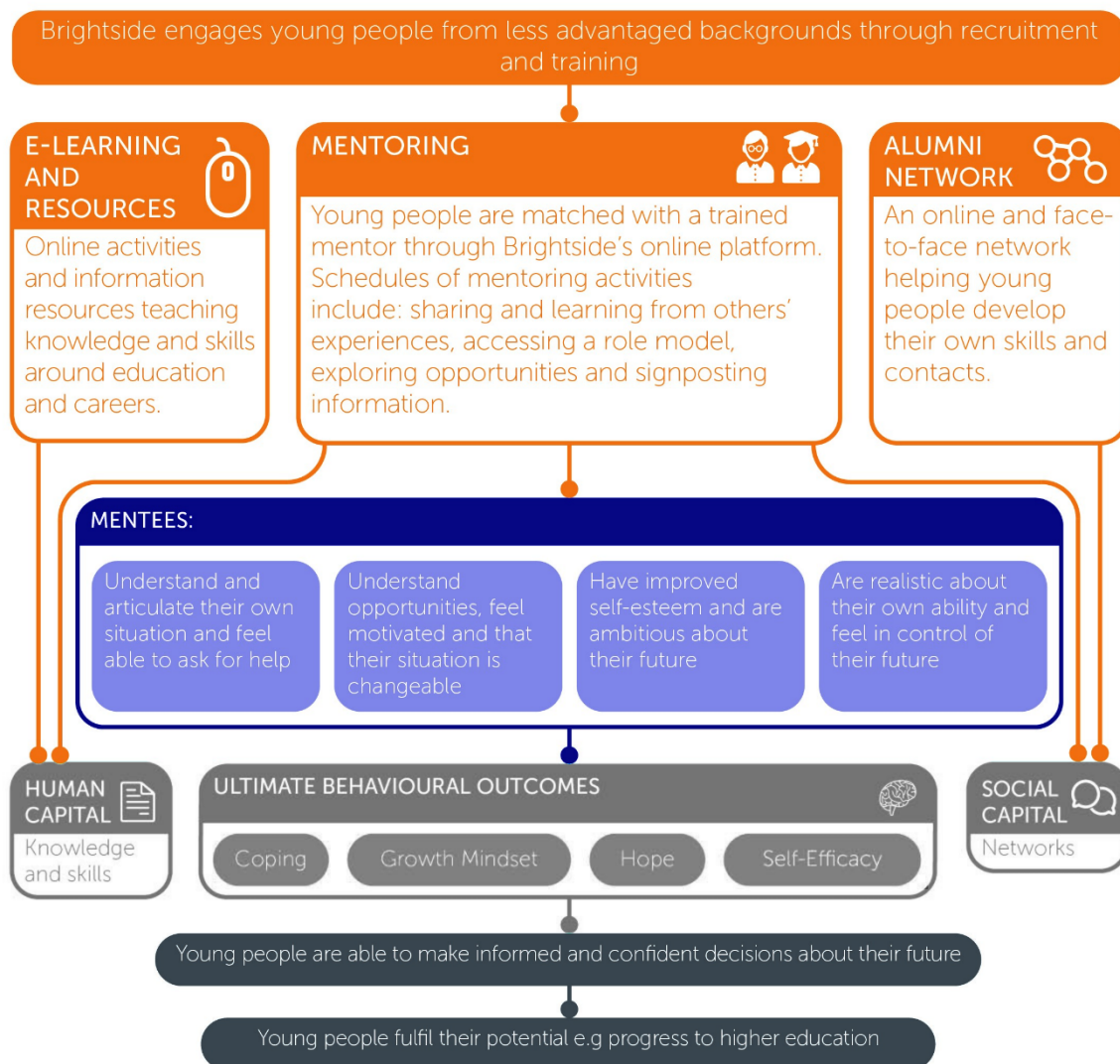
There are two key programme strands for pre-16 cohorts. The first is a six-to-ten-week challenge model, which is activity-led and designed to support young people with developing a range of relevant team-working and communication skills, and also to prepare them to benefit from peer and mentoring relationships during the next stage of their education. The other model is a six-week online-only intervention and is a version of a longer post-16 mentoring programme, but with the material and objectives tailored for a younger cohort. Both interventions are scaffolded and structured to support personal and key skills development across the duration of the programmes.

Theory of change

Brightside worked with external consultants and drew on available research, practitioners' experiential knowledge, and the views of mentors, mentees and partners to develop a comprehensive theory of change, impact framework and quality framework

The theory of change provides a clear map of the input components (e-learning resources, mentoring programme and alumni network) and links them through to intended outcomes: human capital (knowledge and skills), personal behavioural outcomes (coping, growth mindset, hope, self-efficacy) and social capital (networks). This high-level theory of change underpins all of the organisation's interventions, but Brightside is beginning work on more detailed theories of change for each of their separate programmes.

Brightside evaluates mentees' progress against each of these objectives, usually employing established and validated scales. The decision about which scale to use for each objective is made on the basis of external research and/or its use by cognate organisations. They were then verified by an external agency, who 'sense-checked' them to ensure they were valid and robust for the intended measure.



Source: Brightside 2017 Impact Report²³

Other components of evaluation

Their 'quality model' evaluates the success or failure of the online mentoring delivery methods (primarily through data about a participant's engagement with their mentor). Their 'impact model' assesses impact on the individual participants via baseline and exit surveys using validated scales and assessment tools. Brightside also commissioned external evaluators to carry out a content analysis of a selection of the conversations recorded in the online system and model what was going on. From this analysis they were able to create 10 indicators to measure the quality of interaction between mentor and mentee.

²³ See http://brightside.org.uk/wp-content/uploads/2017/09/Brightside-impact-report-2017_FINAL.pdf

A culture of evaluation

Brightside is a reflexive organisation, in which evaluation is highly valued by senior managers and forms a fundamental underpinning of its practice; for example, it plays a strong role in the training of new staff. There is a close feedback cycle between delivery and evaluation staff, and programmes are reviewed on an annual basis using impact evaluation data. Moreover, the evaluation process itself is reviewed at the same time and amended, if necessary, to reflect outcomes, changes to the programme or developing stakeholder requirements.

List of Abbreviations

EMWPREP	East Midlands Widening Participation Research and Evaluation Partnership
FE	Further education
GDPR	General Data Protection Regulation
HE	Higher education
HEAT	Higher Education Access Tracker
HEI	Higher education institution
HEP	Higher education provider
IAG	Information, advice and guidance
KS	Key Stage
LAC	Looked-after children
MFL	Modern foreign language
NCOP	National Collaborative Outreach Programme
NPD	National Pupil Database
OFFA	Office for Fair Access
OfS	Office for Students
STEAM	Science, technology, engineering, arts and mathematics
STEM	Science, technology, engineering and mathematics
TSO	Third-sector organisation
WP	Widening participation
YP	Young people

Understanding the evaluation of access and participation outreach interventions for under 16 year olds

HARRISON, Neil, VIGURS, Katy, CROCKFORD, Julian, MCCAIG, Colin
<<http://orcid.org/0000-0003-4364-5119>>, SQUIRE, Ruth and CLARK, Lewis

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